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ABSTRACT

This self-instructional manual is designed to assist professionals in vocational rehabilitation in the effective use of the fourth edition (1977) of the Dictionary of Occupational Titles (DOT) and closely related materials (i.e., Guide for Occupational Exploration, Worker Trait Group Guide, Career Information System Guide, and Handbook for Analyzing Jobs). Twenty units are included in the manual. Unit 1 shows how occupational information is related to vocational rehabilitation and discusses how to tell when rehabilitation services have been completed. Units 2 through 8 are designed to give a complete understanding of the uses of the DOT. Units 9 through 20 describe how to use the materials that supplement the DOT to compare eight characteristics in clients with those required for various occupations. Each unit follows a typical format--unit title, unit objectives, unit content, and unit exercises. Appended material consists of the following sections, designed to aid in completing the manual: References, Guides, Charts, and Forms; Answers to Exercises; Self-assessment Materials; Two Planning Models for Vocational Assessment; and Comparison of the Guide for Occupational Exploration and the Worker Trait Group Guide. (LRA)

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ASSUMPTION COLLEGE

INSTITUTE FOR SOCIAL AND REHABILITATION SERVICES

THE DICTIONARY OF OCCUPATIONAL TITLES IN VOCATIONAL ASSESSMENT: A SELF STUDY MANUAL

by

CHARLES W. ROBINSON, C.R.C.
ASSOCIATE COORDINATOR

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

This self-instructional manual is being reprinted by the Materials Development Center to assist professionals in vocational rehabilitation in the effective use of the fourth edition of the Dictionary of Occupational Titles and closely related materials. This manual has two strong features: First, it is practical in format and uses many examples drawn from rehabilitation practice. Second, the manual takes a well-rounded view of the DOT by pointing out possible problems as well as appropriate uses of the materials discussed.

To complete the manual, the reader will need access to all of the following publications:

1. U.S. Department of Labor, Dictionary of Occupational Titles, Fourth Edition. Washington, D.C.: Government Printing Office, 1977. To order, use Stock Number 029-013-00079-9. Cost is $12.00.

2. U.S. Department of Labor, Guide for Occupational Exploration. Washington, D.C.: Government Printing Office, 1979. To order, use Stock Number 029-013-00080-2. Price is $11.00.

3. Appalachia Educational Laboratory, Inc., Worker Trait Group Guide. Bloomington, Illinois: McKnight Publishing Co., 1978.

4. Appalachia Educational Laboratory, Inc., Career Information System Guide. Bloomington, Illinois: McKnight Publishing Co., 1978.

5. Manpower Administration, Handbook for Analyzing Jobs. Washington, D.C.: Government Printing Office, 1972. Available from the Materials Development Center as Reprint #13. Cost is $3.00.

The first two publications may be ordered from Government Printing Office bookstores. See the inside back cover for addresses. The two Appalachia Educational Laboratory publications may be ordered from the McKnight Publishing Co., Bloomington, Illinois 61701. The Handbook for Analyzing Jobs is available only from MDC.

Karl F. Botterbusch, Ph.D.
Development Specialist
January, 1980

PREFACE

This preface has been written to help you answer three questions about this self-study manual:

1. How will the manual help me in my job?
2. How is the manual organized?
3. What materials will I need?

1. HOW WILL THIS MANUAL HELP ME IN MY JOB?

_____to sharpen your clinical skills;

_____to decide whether more diagnostic information is needed and if so, what;

_____to provide vocational counseling to persons who are unable to state any job goals;

_____to prepare a vocational assessment plan which will meet the needs of the client;

_____to decide whether you are ready to write a rehabilitation plan;

_____to increase client involvement in the rehabilitation process;

_____to decide when the client is "job ready";

_____to develop job leads and prepare for contacts with employers;

_____to carry out supervisory responsibilities for case monitoring;

_____to develop good referral questions and respond to those asked of you;

_____to assist in staff development; and

_____to facilitate communication with fellow professionals.

It is likely that several of the above activities are included in your job description and you probably noted at least one in which you would like to improve your skill. You will also note that the activities mentioned could be classified into three general groups: vocational diagnosis, planning, and placement. If you have responsibilities in any of these areas, you will find the manual helpful. Completion of the entire manual requires a commitment of time and energy. However, people who have completed this type of manual agree that the investment has paid handsome dividends in their work in three major areas:

- obtaining accurate occupational information quickly,
- applying occupational information to case problems,
- combining personal occupational experience with more structured information to manage their caseloads more effectively.

Read the list at the top of the page once again and consider each item in light of the things you do on your job. Make a check next to the ones in which you could better develop your skill.

2. HOW IS THE MANUAL ORGANIZED

Unit I will help you see how occupational information is related to, and very important in, vocational rehabilitation. This unit also discusses how to tell when rehabilitation services have been completed and the different yardsticks that can be used to compare clients with jobs.

Units II through VIII will give you a complete understanding in the uses of the Dictionary of Occupational Titles (DOT), 4th Edition, 1977. When you complete the exercises in each unit, you will be able to apply this valuable resource to your case practice.

Units IX through XX will teach you how to use materials which supplement the DOT to compare eight very important characteristics in your clients with those required for various occupations.

In each unit, you will be given instructions to read various sections of the DOT and related material. Each set of such instructions will be easily identifiable in [boxes]. You will also be asked to complete a series of exercises to help you remember what you have learned. In addition to being in [boxes], the activities are identified with unit and exercise numbers, e.g., UNIT V, EXERCISE III. These numbers will be useful when you check your answers.

The four appendices contain information which will be useful in completing the manual and in application of occupational information in your case practice.

Appendix A contains:
- materials which describe ways of comparing the vocational behavior and job satisfaction needs of clients with the requirements of jobs (pages 119-123).
- a sample of the type of job analysis on which the DOT is based (pages 124-126).
- an index which makes it easier to locate information in the DOT and related publications (page 127).
- a variety of forms for organizing and comparing information about clients and jobs (pages 128-158).

Appendix B contains:
- answers to all the exercises in the manual (pages 159-179).

Appendix C contains:
- self-assessment activities which you will use to complete a vocational assessment on your own person/job match (pages 180-190). (These are also very useful when adapted for client use.)

Appendix D contains:
- suggested models for applying the skills taught in this manual in two different rehabilitation settings (pages 191-193).

Appendix E contains:
- explanations of differences in terminology between various DOT related publications.

3. WHAT MATERIALS WILL I NEED?

This manual teaches the use of a variety of occupational information resources, all of which have grown out of occupational research conducted by the U.S. Department of Labor (DOL). Each of the five publications mentioned on this page must be available to you while you work on the manual. Further, we believe that they should be a part of your professional library as you work with clients or supervise those who do.

1. U.S. Department of Labor, Dictionary of Occupational Titles, Fourth Edition. Washington, D.C.: Government Printing Office, 1977. To order, use Stock Number 029-013-00079-9. Cost is $12.00.

2. U.S. Department of Labor, Guide for Occupational Exploration. Washington, D.C.: Government Printing Office, 1979. To order, use Stock Number 029-013-00080-2; price is $11.00.

3. Appalachia Educational Laboratory, Inc., Worker Trait Group Guide. Bloomington, Illinois: McKnight Publishing Co., 1978.

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5. Manpower Administration, Handbook for Analyzing Jobs. Washington, D.C.: Government Printing Office, 1972. Available from the Materials Development Center as Reprint #13. Cost is $3.00.

Of course, you will also need a complete copy of this manual and several sharp pencils.

ACKNOWLEDGEMENTS

The development of a manual such as this can never be the work of a single person and I wish to acknowledge those who helped in very significant ways. Eunice Day, Malcolm Palmer and Larry Warnock provided invaluable assistance in the development and implementation of the case record approach used. Brian Lack's earlier summation of worker trait group data was expanded and included in Appendix A. Susan Sabelli made a significant contribution to the manual's readability by her assistance with format, layout, and proofreading.

Special thanks go to the participants in the 1979 Region I RRCEC Vocational Evaluation Training Program for their comments and suggestions during field testing. I would also like to thank Clement Berwitz, Walter Adams and Adaline Padgett for their efforts to help me understand and phrase some of the more difficult concepts involved. Final editorial efforts by Arlene Brown and Karl Botterbusch are gratefully acknowledged.

The assistance of Dr. George S. Elias and Dr. John G. Moline is especially appreciated; without their professional, technical, and personal support, there would have been no manual.

Finally, for her support, encouragement, and forbearance during the preparation of this manual, I wish to express my gratitude to my wife, Heather.

Charles W. Robinson, C.R.C.
September, 1979

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INTRODUCTION

WHO NEEDS OCCUPATIONAL INFORMATION? WE ALL DO, BUT SPECIFICALLY:

V.R. COUNSELORS:
- to complete the legally required vocational diagnostic process,
- to involve the client in the rehabilitation planning process,
- to request and approve appropriate vendor services which can be directly related to the vocational objective,
- to determine job readiness and coordinate placement activity.

VOCATIONAL EVALUATORS:
- to develop useful vocational assessment plans, and select appropriate measures,
- to assist in report writing,
- to decide which assessment devices to purchase or develop.

REHABILITATION SUPERVISORS:
- to monitor the quality of rehabilitation services rendered under their supervision,
- to conduct program evaluation activities, and relate results to staff training needs.

OTHER PROVIDERS OF REHABILITATION SERVICES:
- to relate diagnostic and/or treatment objectives to a vocational outcome,
- to prepare reports of case finding in which the vocational implications can be readily determined.

THE VOCATIONAL REHABILITATION CLIENT:
- to become a meaningful participant in the rehabilitation process,
- to examine personal traits and aspirations in a vocational context,
- to learn (or confirm knowledge) about the demands and rewards of work,
- to develop self-analysis and decision-making skills useful in future career decisions.

UNIT I OCCUPATIONAL INFORMATION IN VOCATIONAL REHABILITATION

Unit Objectives:

1. To summarize the uses of occupational information in relation to the goals of vocational rehabilitation.
2. To introduce and explain the person/job match.
3. To present the content of the "Occupational Yardstick."

INTRODUCTION

As used in this manual, occupational information is defined as:

1. Data describing the characteristics of occupations and
2. Data describing a person's vocationally significant characteristics.

This fairly broad definition includes both personal traits and occupational factors; it also draws attention to the need for a comparison of both types of occupational information at four major decision points in the vocational rehabilitation process:

First, a general comparison of data about occupational and personal characteristics is used during eligibility determination. Disabled persons are not eligible for services from public vocational rehabilitation programs, for example, unless there is a reasonable expectation that they will benefit from services in terms of increased employability. This expectation is established by comparing the client's employment limitations with the potential for their reduction.

Second, the Individualized Written Rehabilitation Program (IWRP)* is based on an agreement by all concerned parties that the client has or can develop the abilities and skills needed for success in an occupational group or a specific occupation. This agreement requires a comparison of the characteristics of the occupation(s) and the person. Further, the IWRP must indicate specific steps by which personal characteristics not presently considered appropriate to occupational demands will be developed or modified.

Third, placement of the client in competitive employment requires that the demands and rewards of the job be compared with the present abilities and needs of the client. If a "job/person" match is not considered satisfactory, the placement is either rejected or efforts are directed toward improving the match by changing both--either the client's behavior, ability, or attitudes or by making physical and/or social modifications in the job.

Fourth, termination of case services comes only after a final comparison of personal characteristics as displayed on the job with those demanded by the specific job tasks.

Thus, a comparison of worker characteristics with those of the work itself is at the heart of the vocational rehabilitation process. This type of person/job

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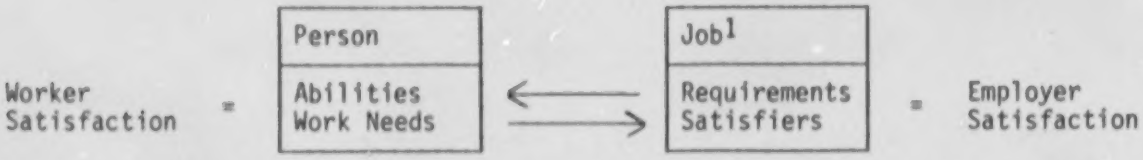
*Remember, words followed by asterisks are defined on pages 116-118.

matching requires that professional staff have specific skills in gathering and synthesizing information about both people and occupations. Comparison of these two types of occupational information necessitates the availability of a standard against which each information base can be measured.

WHAT IS JOB SUCCESS

In the state-federal vocational rehabilitation program, client success is usually measured by achieving paid employment lasting at least 60 days. Hopefully, this is the placement of a client in a job that matches his/her characteristics with the demands and rewards of a position. This concept is perhaps put forth best in the Minnesota Theory of Work Adjustment, which can be diagrammed as follows:



In this model, job success or adjustment is defined as a point where both the worker and the employer are satisfied. In the public vocational rehabilitation program, the rehabilitation case manager uses information from both the worker and the employer as well as direct observation to make the final decision that the "match" is satisfactory and that the case may be successfully closed.

Actually, a satisfactory work adjustment means a "good" person/job match in at least three areas:

- the occupational characteristics of the client (ability to perform the actual work) must be sufficient for the tasks assigned,
- the client's work behavior must be acceptable to the employer, and
- the rewards of the job must satisfy the needs of the worker.

Vocational rehabilitation services should be directly related to the improvement of the person/job match. Therefore, those who provide such services (and those who approve them) should be able to see how they relate to vocational outcome. One major use of occupational information is to identify the need for client change in a specific area and the probable effect of rehabilitation services on vocational outcome.

For example, we might use occupational information to determine that the position being considered for a client ("Henry") requires four hours of standing and walking a day, and also to determine that presently "Henry" can stand only one hour a day. If physical therapy can be expected to increase his

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[1]Note: Words such as "position," "job," and "occupation" are used interchangeably in ordinary conversation, even though they have technical meanings which are important. Please read the definitions for element, task, position, job, and occupation on page 116 to clarify their precise meanings.

standing tolerance, it is clearly a desirable--justifiable--service for him. If, however, no service is likely to increase his tolerance substantially, we can predict a work adjustment problem in this area. Obviously, we would consider job modification or specialized placement as other ways to improve the person/job match before deciding on the "feasibility" of this particular position for this particular client.

The important point, however, is that we use occupational information to look both at the abilities of the person and the required characteristics of the job so that we can make decisions as to the chances for success and what must be done to ensure it. Vocational rehabilitation workers are obliged to assess the ways in which their services will improve the person/job match. To be reasonably accurate, however, we need to compare the client and job in each of these three areas:

- occupational characteristics
- work behavior
- job satisfaction needs/occupational reinforcers

This manual focuses on the application of occupational information in the first area: to compare the occupational characteristics (abilities, etc.) of persons to those of positions, jobs, and occupations.[1]

Before we move on, let's stop and try some exercises to help you remember the things learned thus far.

UNIT I, EXERCISE I

1. The most accurate term for the total work assignment of a single worker is _____.

2. The job/person match is said to be successful when the _____ of the worker fulfill the _____ of the job and the _____ of the job satisfy the _____ of the worker.

3. In the State-Federal Program of Vocational Rehabilitation, the decision that a job/person match is "satisfactory" is made by the _____.

4. Rehabilitation services provided to eligible V.R. clients must be justified on the basis that they will _____ the job/person match.

5. To assure a satisfactory job/person match, comparison should be possible in three areas: _____ characteristics, _____ behavior, and job satisfaction _____/occupational _____.

[1]Note: For those interested in additional information about the two other areas in which job/person matching is important, see Appendix A. Pages 119-120 describe the 20 job satisfaction factors in the Minnesota Theory of Work Adjustment; Gordon Krantz's article on Critical Vocational Behaviors is reprinted on pages 121-123.

6. Are the following examples of elements, tasks, positions, jobs, or occupations

(a) Machine operator _____
(b) Cashier at McDonalds _____
(c) Cashier _____
(d) George Johnson's duties as cashier at McDonalds _____
(e) Vocational Rehabilitation Counselor _____
(f) Totaling customer's bills at McDonalds _____
(g) Dropping uncooked potatoes into a basket for frying _____

Now that you have finished, check your responses with the answers in Appendix B, page 159.

THE OCCUPATIONAL YARDSTICK

When we want to compare two or more things, we use a measuring device as a standard of comparison:

- to compare the weights of two people, we use a scale.
- to compare the lengths of two cars, we use a yardstick.

If we are to compare a person's characteristics with those of an occupation, we also need a standard of comparison that will apply equally well to both--we need an "occupational yardstick."

The DOT provides two useful standards which we can combine to construct our yardstick:

- a work profile--a description of the work involved in an actual position or the type of duties a person wants.
- a qualifications profile--the significant traits required for a position or the traits of a worker.

On the next page, we have provided an example of this yardstick as it can be applied to a client ("Henry") and a position in which he is interested (host at Drakes Restaurant). Henry's counselor developed a work and qualifications profile of Henry and it appears in Column 1. Notice that you can get a fairly complete vocational picture of what Henry wants to do and can do, by reading down Column 1.

Henry's counselor used the DOT and an interview with the restaurant owner to develop the work and qualifications profile for the opening at Drakes. By reading down Column 3, you get a clear picture of what the job is and its demands.

The counselor used the Occupational Yardstick (Column 2) to organize the available information about the client and the opening. By reading across the page, you can compare the job characteristics with Henry's work traits. Look at page 6 again and study the client and the position. Note that there are several parts of the job which seem well suited to Henry. In other areas, however, he is likely to have difficulty meeting the demands of the job, or find that the job doesn't fit his needs.

"Review" the page as if you were responsible for helping Henry make a decision about this opening.

Draw circles around areas in Column 1 where you think Henry may have difficulty meeting the demands of the job.

Then, draw circles around areas in Column 3 where the job may not be able to satisfy Henry's needs.

Check on page 160 in the Appendix to see which areas we circled. You may not agree completely with our conclusions. But we think you will agree that this would give us a good start on discussing the critical areas. It would also give clues as to the types of diagnostic information and rehabilitation services that might be needed. This comparison of the client and the job is a major focus of the VR process.

THE OCCUPATIONAL YARDSTICK

Henry's Characteristics & Needs		Demands & Rewards, Host at Drakes Restaurant
Supervise, Coordinate, Train, Prepare	WORKER ACTIONS (Does what)	Supervises, Coordinates
Dining Room & Kitchen Staff	IMMEDIATE OBJECT (To what/whom)	Dining Room Staff
To Provide	INFINITIVE (In order to)	To Provide
A luxurious eating experience for people	GOAL (To accomplish what)	Fast & Courteous service to patrons
Help others, Business contact, Communication of ideas & information	WORK ACTIVITIES (preferences for)	Business contact, Recognition or appreciation from others, Communication of ideas & info
Variety, Directing others, Precise decision-making	WORK SITUATIONS (Ability to adapt to)	Frequent duty change, Planning & Directing an entire activity, Decision-making on judgement
Interpret data, Read reports & Journals	GENERAL EDUCATIONAL DEVELOPMENT (Reasoning, math, & language)	Interpret data with limited standardization, Prepare business letters, Compute payroll, Records receipts & credits
Doesn't want more schooling. Will spend up to one year as trainee	SPECIFIC VOCATIONAL PREPARATION (Type & duration)	On-the-job training, 6-12 months to learn job and clientele
One hr. standing/walking, Maximum lifting. 20 lbs., Seeing, talking, hearing	PHYSICAL DEMANDS (Capacities)	Four + hrs. standing/walking, Twenty lbs. lifting regularly, Seeing, talking, hearing
Inside	WORKING CONDITIONS (Physical surroundings)	Inside
Above average in intelligence, verbal, low average in clerical; Below average in numerical	APTITUDES (Ability to learn to)	Average verbal, numerical, and clerical
High people, average data, low things	DATA/PEOPLE/THINGS (Relationship to)	High data, average people, low things

To do all this, you will need direct, accurate occupational information. Let's start by defining that term:

> Direct Occupational Information is data about work requirements which is obtained by formal job analysis* or is based thereon.

All other information about occupations is called indirect including brochures, articles, interviews, and personal experience. Although indirect information isn't usually obtained in a scientific way, we need both direct and indirect occupational information to do our jobs. Indeed, we shouldn't depend on either one alone!

Here are some more questions on the material covered thus far:

UNIT I, EXERCISE II

1. To compare people with positions, jobs, and occupations, we use the _____ _____ which has two parts, a _____ of the work itself and a _____ profile.

2. Occupational information which is derived from formal job analysis is called _____.

3. For each of the following examples of occupational information, indicate whether it is most likely direct or indirect:

   (a) A brochure describing the ABC school's course in auto mechanics. _____

   (b) A report on the requirements for auto parts clerks, as prepared by the U.S. Department of Labor. _____

   (c) Your knowledge of the duties of musicians based on five years experience with the house band at Bobo's Roadhouse. _____

   (d) An analysis of secretarial positions in a large manufacturing plant as prepared by their position analyst. _____

   (e) Your observation of clerical workers based on a plant tour. _____

How Do We Select an Occupational Information System?

If we are going to take the time to learn a system to help us with the person/job match, it should have the following characteristics:

- it should be based on the most direct, objectively obtained information.
- it should be inclusive of all major occupations.
- it should be usable by staff and clients alike.
- it should be applicable to both jobs and people.
- it should classify all occupations without overlap.
- it should be cross-referenced for easy usage.
- it should have widespread acceptance.
- it should help us use occupational information from other sources.
- it should provide common language for all rehabilitation professionals.

Only one occupational information system has all these characteristics. It is the Fourth Edition of the Dictionary of Occupational Titles (DOT)*.

UNIT II INTRODUCTION TO THE DICTIONARY OF OCCUPATIONAL TITLES

Unit Objectives:

1. To review the history and development of the DOT through the first three editions.
2. To describe the two major functions of the DOT, Fourth Edition as applied to vocational rehabilitation.
3. To review the relationship between job analysis and DOT.

History and Development of the DOT

The first public program of occupational research began in 1933. Its purpose was to provide to public employment offices information that could be used in the placement of large numbers of unemployed workers. This early research was originally published in separate volumes according to industries in which the occupations were found. It soon became apparent, however, that this approach was resulting in too many volumes to be useful in day-to-day activity.

In 1939, the first single volume of the Dictionary of Occupational Titles appeared. It summarized the information from earlier works, added data on occupations not previously studied, and used a system of numbers as an "occupational code." The system was not easily used without considerable practice and reflected the fact that the DOT was primarily for use by public employment office staff. The second edition of the DOT appeared in 1949. It included much of the information on occupations derived from World War II manpower research. For example, occupations in the new plastics industry were included for the first time. Continued expansion of occupations and increased complexity thereof during the postwar era forced publication of several updates and supplements. In 1955, for example, one appeared which contained 2,200 new and revised definitions.

In 1965, a considerably expanded and revised third edition was published. Besides offering definitions for over 20,000 titles, the DOT introduced a system of "worker functions" which facilitated use of the DOT for person/job matching. The occupational code was revised and made more readily understandable. By adding a new system of classifying occupations, called worker trait arrangement, it was possible to determine the degree to which aptitudes, interests, education, physical capacities, etc., were required for average successful job performance. It should be noted that like its predecessors, the third edition had to be supplemented and it was three years after original publication before the third edition was complete.

Both the second and third editions were more useful outside the public employment program than their predecessors. This was especially true of the third edition which became widely used in a variety of settings. Of particular interest were two uses which relate to the disabled. First, DOT materials were adapted for use by vocational rehabilitation personnel in all of the areas mentioned in the preface. The extensive experience derived from these uses is the basis for this manual on the fourth edition.

Second, the third edition was also extensively modified as the basis for a course in occupational exploration and career decision making for high school

students. Although this program did not get wide usage in its third edition version, it was extensively field tested including use with groups of disabled persons. Adapted again for use with the fourth edition of the DOT, it is now commercially available. You will be using these materials as you complete Units IX-XX of this manual.

Structure of the Fourth Edition of the DOT

The DOT is a single volume publication which contains a great quantity of occupational information within its 1,371 pages. You will also be using a companion volume called the Guide for Occupational Exploration in Units IX-XIX.

For now, you need only to remember that the DOT has two major functions:

1. The identification of occupational titles and their definitions.

2. The classification of occupations in four major ways so that job requirements and worker characteristics can be compared:

    a. Occupational Group Arrangement (OGA)*
    b. Industrial Designation (Ind. Des.)*
    c. Data, People, Things (DPT)*
    d. Worker Trait Groups (WTG)*

Units III and IV will show how to use the DOT titles and definitions; Units V, VI, VII, and X will detail the four major classification systems and their uses in vocational rehabilitation.

Job Analysis: The Foundation for the DOT

The data used for developing the occupational definitions and classification systems was derived from 75,000 job analyses.* Job analysis is a separate subject in itself.[1] Our current needs are primarily to know that it is an organized system that involves direct observation of the work performed on a specific job plus interviews with the worker(s) and often supervisor(s). A job analysis contains two broad types of information: the work performed and the worker requirements. Under these broad headings, five specific types of information are recorded:

1. what the worker does in relation to data, people and things (called Worker Functions)

2. the methodologies and techniques employed (called Work Fields)

3. the machines, tools, equipment and work aids used (abbreviated as MTEWA)

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[1]A self-study manual entitled Job Analysis Self-Study Manual is available from the Research & Training Center, University of Wisconsin-Stout, Menomonie, Wisconsin 54751 for $4.00.

4. the materials, products, subject matter or services which result (abbreviated as MPSMS)

5. the characteristics required of the worker for average, successful performance (called Worker Traits)

From this information, task statements are written and from those, a job summary is written which serves as a mini-job description. A completed job analysis has been included on pages 124-126 as an example. Please review it briefly.

There are two final notes about job analysis which are significant:

1. Job analysis is conducted by observation and interview, but the report is on the work. Every effort is made to record the characteristics of the position, not of the particular worker.

2. Since each definition in the DOT was developed from several job analyses from around the country, the definitions must now be considered as occupational analyses. This means that their usefulness is in providing direct occupational information of a general nature. You cannot expect that a specific position will be exactly the same as reported in the DOT.

THE MAJOR IMPLICATION OF THESE POINTS IS THAT PROFESSIONAL JUDGEMENT AND ACTIVITY BY REHABILITATION PERSONNEL WILL BE NEEDED TO APPLY DOT DATA TO SPECIFIC CLIENTS AND POSITIONS IN ORDER TO ASSURE A SUCCESSFUL MATCH.

Here are some more exercises to help you remember the most important segments of this unit.

UNIT II, EXERCISE I

1. The DOT has evolved over the four editions from a complex document intended primarily for use by _____ to a broad source of occupational information of use to both _____ and _____ _____.

2. Information in the DOT is based on direct occupational information derived from _____ _____.

3. Job analysis consists of direct observation of the work performed and _____ with workers and supervisors.

4. Job analysis describes -
   what the worker does in relation to data, _____ and _____ _____ and is called _____ _____;
   the methologies and techniques employed, called _____;
   the machines, tools, equipment and work aids, abbreviated as _____ _____;
   the materials, products, subject matter, or service which result, abbreviated as _____;
   the specific characteristics required of workers, called _____.

5. The two major functions of the DOT are (1)_____ and identification of occupational titles and (2)_____ of occupations into four main systems.

6. In the DOT and accompanying materials, occupations are classified according to _____ _____ arrangement, _____ designation, _____, _____, _____, and _____ _____ groups.

7. Although the data in the DOT is based on 75,000 direct _____ analyses, it has been combined and summarized to the extent that it now reflects _____ analysis.

8. Job analysis seeks to record the _____ involved in a position and not the characteristics of a _____.

Be sure to check your responses in Appendix B.

UNIT III THE OCCUPATIONAL DEFINITION AND ITS USES

Unit Objectives:

1. To introduce and explain the parts of the Occupational Definition.
2. To explain how to develop a Work Profile from the occupational definition.
3. To provide practice in deriving a Work Profile from a description of a job or a work history.

PARTS OF THE OCCUPATIONAL DEFINITION

Each of the more than twelve thousand occupational definitions contained in the DOT has six parts. They are arranged in a standard order so that once you learn where to look, you will be able to find specific information quickly. Let's go through them in the order in which they appear in the DOT.

A. The Occupational Code Number

Each occupation defined in the DOT has a nine digit number which is different from all the rest of the occupations. Definitions are organized according to this number beginning on page 15, 001.061-010 which is Architect and ending on page 946 with 979.687-022, Screen Printer Helper.

There are some other things you will want to know about that occupational code--the first three digits identify the "job family" or Occupational Group Arrangement. (We will study OGA in detail in Unit V.)

The second three digits identify the worker function level of the occupation and is usually called DPT. (More about this in Unit VI.)

Because some occupations are found in the same job family and have the same worker function levels, a third set of digits has been added so that each occupation will have its own unique occupational code number. The use of computers to store and make occupational information available will make this increasingly useful.

Note on page 694 that there are two occupations with the code 722.381. Without the last three digits, we couldn't use the occupational code to indicate which one we wanted. By adding the last three digits, however, we can differentiate between ASSEMBLER (tel. & tel.) and INSTRUMENT INSPECTOR (aircraft-aerospace manufacturing).

B. The Base Title

Occupations are known by many titles and we need to know which is the correct or proper one. We will study the different types of titles in Unit IV. For now, just remember that the base title is:

- the title by which the occupation is known in most places,
- always shown in upper case, boldfaced type, e.g., COIL CONNECTOR,
- always the second item in the Occupational Definition, immediately following the occupational code.

C. The Industrial Designation

Although we will learn much more about industry designations in Unit VII, for now, you need to know that they:

- are listed immediately after the base title to help differentiate between two identical titles, e.g., ASSEMBLER (jewelry) and ASSEMBLER (elec. equip.),
- are shown as abbreviations and in parentheses.

D. Alternate Titles

These are simply other names for the base title and are listed because they are commonly used instead of the base title in some parts of the country. They are in darker print but lower case letters. For example, "connector" is another title for COIL CONNECTOR.

E. The Body of the Definition

1. This part of the definition may have from two to eight parts. Always included are:

   a. The Lead Statement. This is the first sentence in an occupational definition and ends with a colon (:). It summarizes the entire description by including:

      - the worker's actions,
      - the object of that action,
      - the machines, tools, equipment and work aids used by the worker,
      - the purpose of the occupation, e.g., materials processed, products made, subject matter dealt with, or services rendered.

      The Lead Statement always describes the worker's action and the object of the action. The purpose and materials, tools, equipment, and work aids may have to be assumed. For example, a SPIDER ASSEMBLER (721.684-026)

      - assembles (worker action),
      - coils, poles and fastening devices (object),
      - to build rotating field for motors and alternators (the purpose of the occupation, in this case, a product),
      - the materials, tools, etc., used are found elsewhere in this definition.

   b. Task Element Statements. These are the major tasks which make up the occupation. These statements have many of the same components as the Lead Statements. They always:

      - begin with a verb that describes the worker's action;
      - give the object of the verb.

2. The definition sometimes has up to eight parts. Parts which appear in some definitions, but not all, are:

   a. "May" Items. These statements are task statements which appear in some jobs and positions within the occupation, but not others. The word "may" means that in some instances the task will be a regular part of a worker's responsibility. When we adapt a general occupational description to specific employment for a client, it will be important to find out if "may" statements apply to that position!

      For example, some SPIDER ASSEMBLERS "may" prepare the leads and clamps.

   b. Italicized Words. Sometimes a word is used which has a specific vocational meaning which is not ordinarily found in a standard dictionary. When this happens, the word will be printed in *italics*. You can look up the meaning for an italicized word in a glossary found on Page 947-963 of the DOT.

      Just to try it out, look up the words *doctor* and *fixture*.

   c. Bracketed Titles. In some instances, a worker in one occupation will be required to perform duties which are usually part of those found in another occupation. When this happens regularly, the task will be mentioned along with the base title where it is usually found, in brackets. When an occupational title appears in brackets in the definition of another occupation you are considering for a client, you should look at both definitions to be sure you have all the necessary information.

      For example, a COIL CONNECTOR is regularly expected to lace and tie coil leads, which is usually the type of work done by a LACER AND TIER.

   d. Unbracketed Titles. These are also base titles which appear in the definition of another. This time, the reason is to show a close, working relationship, such as that one worker supervises the other. When an unbracketed title appears in a definition, you will be able to decide the nature of that close relationship.

      For example, an ELECTRICAL APPLIANCE REPAIRER may assist an ELECTRICAL APPLIANCE SERVICER in repairing certain items. And, a VOCATIONAL REHABILITATION COUNSELOR may refer clients to a BUSINESS-ENTERPRISE OFFICER for specialized placement in a business enterprise.

   e. Roman Numerals. Sometimes different occupations are known by the same base title. When this happens to occupations in the same industry, Roman Numerals are assigned after the industry designation. This lets you know that more than one title should be consulted to be sure you have the one you want.

As an example, turn to Page 724 in the DOT. Note that there are two occupations listed for ASSEMBLER (firearms), 736.381-010 and 736.684-014. If you read the two definitions, you will note that there are some significant differences between the Lead and Task Statements for the two occupations. Therefore, the Roman Numerals have been added as a warning that there is more than one occupation in the firearms industry entitled ASSEMBLER.

f. Statement of Significant Variables. Occasionally, at the end of a definition, a sentence will begin with the words "Important variations include . . ." It will then show the possible variations an occupation can cover. By this method, the need to include the definitions for nearly identical titles is eliminated.

An example is 207.682-018 OFFSET-DUPLICATING-MACHINE OPERATOR (clerical). Here the variations are dependent upon the type of equipment used.

F. Undefined, Related Titles

This is the sixth and last part of an Occupational Definition. This type of title is for a variation or specialization of a base title. It is listed near the end of the definition using the opening statement, "May be designated . . ." or some similar phrase. The reason why it is identified as a separate but related title is given along with the Undefined, Related Title in capital letters.

For example, an INSPECTOR, FINAL (firearms) may be designated as a FINAL INSPECTOR (firearms) if his/her functions are restricted to that stage of the process. As another example, look on Page 725 at the description for 737.131-010. Fireworks assembly supervisors may be designated by other undefined, related titles according to the type of product manufactured or the function supervised.

USING THE OCCUPATIONAL DEFINITION

Earlier, we learned that one use of the DOT was to develop the occupational yardstick and that the yardstick has two parts--a work profile and a qualifications profile.

Now that we understand the occupational definition, we can develop the work profiles, which are made up of four parts:

1. Worker Action - an action verb that tells what the worker does.
2. Immediate object - the object of the verb or the "to what or whom."
3. Infinitive - the second action verb telling how the goal is accomplished.
4. Goal - the material, product, subject matter or service that results.

As an example, let's look at the lead statement for VOCATIONAL-REHABILITATION COUNSELOR as it is diagrammed into the work profile.

VR Counselor	Work Profile Component
Counsels...	Worker Action (Does what...).
.....handicapped individuals...	Immediate Action (to whom...)
.....to provide...	INFINITIVE (in order...)
.....vocational rehabilitation services	GOAL

All Lead Statements and Task Element Statements provide data which can be diagrammed into worker action and immediate object breakdowns. Information for the infinitive and goal portions of the diagram is not always stated but can usually be implied. For example, a COATER (bus. ser.) 503.685-010 "Tends equipment that cleans, coats and dries baking pans." The worker action is "tends" and the immediate object is "equipment." Although no infinitive or goal is explicitly stated, the equipment is tended in order "to clean, coat and dry" "baking pans."

Another example of a task statement in which inferences are required is found in the Lead Statement for AUTOMOBILE RACER (amuse. & rec.) 153.243-010: "Drives automobile racing car in competitive road races." The portions of the diagram which have been inferred are shown in parentheses ( ).

Drives	Worker Action
Automobile Racing Car	Immediate Object
(to win)	Infinitive
Competitive Road Races	Goal

Let's try some for practice. Here are seven occupational codes. Look each one up, record the title and read the complete definition. Then diagram the Lead Statements. Try to make a complete diagram, using parentheses to indicate any inferences you have to provide.

UNIT III, EXERCISE I

	Occ. Code	Base Title	Worker Action	Immed. Obj.	Infin.	Goal
1.	806.684-106					
2.	570.685-038					
3.	376.667-010					
4.	789.687-054					
5.	041.061-054					
6.	041.061-078					
7.	102.117-010					

Before we leave the subject of work profiles, we should note that this technique is a good way to obtain a work history from a client and for gathering information about client aspirations. Here are two client statements. Could you translate them into Work Profiles?

> "I ran a mixing machine that made dough at the Crumbles Bread Co. I got a list of which things I was to make each day. I put the flour and stuff on the dolly and moved it to the dough machine and dumped it in. Then I used a list to tell how much other stuff to put in, turned on the machine and made sure everything went along O.K."
>
> "What I would like to do though is work over at the silversmiths running one of those profile saws where you trim up the edges of silver plates and dishes after they have come off the form press. I would have to measure the plates and dishes to know where to cut and then set up the saw and all. But I know how to use all the tools and I wouldn't have to lift anything heavy."

- - - - - -

From the information given, the work profile from her former job would probably look like this:

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL
Loads	Ingredients	To mix	(dough in proper proportions)
Operates	Dough machine		

You might want to ask some additional questions to find out things like physical demands, other duties, etc., but the client told us enough to get a good profile for further use.

As for her job goal, the profile might look like this:

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL
set up and operate	profile saw	to trim	plate and dish edges

Again, there are some questions you would want to ask (such as the type and complexity of tools used and how standards are set) but you have a good idea of what to ask. Notice, also, that you have the beginnings of a comparison between what the client did in the past and wants to do in the future. These are examples of how you can apply the techniques in this manual to your professional practice. Constructing work profiles takes a little practice but you now have the basic knowledge required.

UNIT IV THE SEVEN TYPES OF OCCUPATIONAL TITLES

Unit Objectives:

1. To provide a review and explanation of the seven types of occupational titles.
2. To provide the Alphabetical Index used to locate Occupational Title.
3. To provide practice in identifying the various types of titles.

THE SEVEN TYPES OF TITLES

In the previous unit on occupational definitions, we discussed five of the seven types of titles because they actually appear in the definition itself. The other two types of titles are for reference purposes. Let's look at them first and then review all seven.

Master Title - Turn to Page 1 of the DOT and read the description at the top of the page. Then, just skim the 15 Master Titles.

There are two things you should know about Master Titles:

1. They are occupations with common titles and a number of common duties. The common duties for all occupations with that title are printed under the Master Title to save space and reduce repetition. Also, however, the ways in which Master Title occupations are classified are listed on these pages.

   For example, DRAFTERS are classified according to the type of drafting they do. Duties common to all drafters are defined.

2. Master Titles are indexed but are followed by the word (Master) and have no DOT code of their own. These are your clues to look on Pages 1-3 to find both common duties and how to classify the title further.

   For example, if you were helping a client locate a definition for a drafter, you would note that it is a Master Title and read the master definition to be able to describe the general duties of all drafters. Then you would ask the client which type of drafting he/she wished to learn more about and using that information, locate the proper base title(s).

Term Titles - Turn to Page 5 in the DOT and read the description at the top of the page. Then skim quickly over the 194 term titles.

Here are the most important things you should know about term titles:

1. They are occupations with common titles but few common duties, requirements or job locations. In other words, term titles are too general to tell you enough about the occupation to find the base title or definition.

For example, the term "Engineer" covers such a wide range of duties and occupations that by itself, it has little meaning. Thus, the description tells you the range of duties and how the engineering occupations are classified.

2. Term titles are indexed and always followed by the word (Term). They have no DOT code. The descriptions always begin with the words "a term..." to show you that this is not a definition. The description will help you understand how term titles are classified.

Now, you have been exposed to each of the seven types of titles in the DOT. Before giving you a chance to demonstrate your ability to recognize and use them, a chart which summarizes the important characteristics of each is provided on pages 21-22.

TITLE	DOT CODE	PRINT TYPE	DEFINITION	OTHER CHARACTERISTICS	EXAMPLE
1. BASE	Has own	Upper Case, Heavy Black	Only title with own definition	Major title by which occupation is known	VOCATIONAL REHABILITATION COUNSELOR
2. ALTERNATE	None. Takes code of base.	Lower Case, Heavy Black	None	A title used in some parts of country. A synonym for base title.	Prosecuting attorney
3. BRACKETED	Has own	Upper Case, Heavy Black	N.A.	Is a base title in its own right. Appears in brackets ( ) in body of the definition of another base title when some of its duties are frequently assigned to another worker.	When a PRODUCTION COORDINATOR expedites material, he/she is carrying out a function usually assigned to a [MATERIAL COORDINATOR]
4. UNBRACKETED	Has own	Upper Case, Heavy Black	N.A.	Is a base title in own right. Appears in the body of the definition of another base title to demonstrate a close working relationship between the two and the nature thereof.	A MATERIAL EXPEDITER has a close working relationship with a MATERIAL HANDLER which is of a superior/ subordinate type

TITLE	DOT CODE	PRINT TYPE	DEFINITION	OTHER CHARACTERISTICS	EXAMPLE
5. UNDEFINED RELATED	None, takes code of base	Upper Case, Heavy Black	Only a sentence to distinguish it from the base.	A slight variation from the base title which warrants (a) slightly different title and as few words to show what the difference entails.	An EGG GRADER (undefined, related) is basically an EGG CANDLER (base) who also grades eggs by size, weight, color, etc.
6. MASTER	None	Upper Case, Heavy Black	Those duties which are common to all occupations under the Master Title are defined.	Master Titles are occupations having common titles and common duties. The definition will also help in classifying by base titles.	SALES ENGINEER
7. TERM	None	Upper Case, Heavy Black	None	The description has as its Major purpose to explain how term titles are classified.	PHYSICIAN

THE ALPHABETICAL INDEX OF TITLES

Located on pages 965 through 1156 of the DOT, this index lists all base, undefined-related, master and term titles alphabetically. It has two major functions.

1. It allows you to find the DOT code for all titles (except Master and Term). Since the occupational definitions are arranged numerically, the code number is the key to locating the definitions.

2. The index alerts you to whether or not you have a title which can be defined or whether you need additional information to decide on the proper title.

    - if you have a base, alternate, or undefined, related title, a definition can be found.
    - if you have a master or term title, additional information will be needed before you can locate a title. (The words "Master" or "Term" will appear after the title.)

HOW MULTIPLE WORD TITLES ARE ORGANIZED

If an occupational title has more than one word in it, you may have to rearrange them to find the title in the index. In general, title words are arranged to give you a mini-job description. CARPENTER, for example, tells you what the worker does. If you are looking for a particular kind of carpenter, such as a rough carpenter or mine carpenter, it will be listed like this:

CARPENTER, ROUGH
CARPENTER, MINE

with the modifier following the noun.

However, sometimes the modifier comes first as in:

MODEL MAKER
FIRE MARSHALL

because it would be confusing the other way.

In general, the rule to follow is: if the extra words in a title modify or specialize the key word, look up the key word. If by doing this, the title becomes nonsensical, however, don't. If in doubt, try both!

To help you out, the title is sometimes listed both ways in the index. (VOCATIONAL-REHABILITATION COUNSELOR is also listed as "counselor, vocational rehabilitation," for example. Also note that when two words are hyphentated such as VOCATIONAL-REHABILITATION, they will never be split in the index. Thus, there is no listing for Rehabilitation Counselor, Vocational.)

Now let's have you look up some titles using the alphabetical index:

UNIT IV, EXERCISE I

Find the page in the index on which the following titles are listed:

1. BLASTER HELPER _____
2. FLIGHT SURGEON _____
3. LOOPING SUPERVISOR _____
4. FLAGGER _____
5. INSECTICIDE SUPERVISOR _____
6. TIPPING-MACHINE OPERATOR _____
7. SEMI-AUTOMATIC MACHINE SETTER _____
8. FLOOR SUPERVISOR _____
9. MIRROR PAINTER _____
10. GOLD LEAF LABORER _____

Finally, we want you to use the alphabetical index and the occupational definitions to identify the various types of titles and extract other useful information. On the following page, provide the information requested. Please note that you cannot always provide a DOT number or a base title and that you are sometimes asked to provide answers which can only be placed in the "other" column. The blank lines have been placed to show you where a response is required.

UNIT IV, EXERCISE II

QUESTION	DOT #	BASE TITLE	TITLE TYPE	OTHER
1. SWAGER OPERATOR				
2. Swage Toolsetter				
3. How are LOGGERS classified?				
4. How is a PAINT-SAMPLE CLERK classified?				
5. With whom do ELEVATOR STARTERS have close working relationships and what is its nature?				
6. What is the basic function of a BARREL CHARRER?				
7. What are the major worker functions for any SEWING-MACHINE OPERATOR, REGULAR EQUIPMENT and how are specific occupations classified?				
8. Sometimes a ROUND-CORNER CUTTER MACHINE OPERATOR also tends a punch press to drill holes in paper. Whose task is this usually?				
9. Gem Expert				
10. According to the lead statements, what is the major difference between the duties of GENERAL DUTY NURSE and a PRIVATE DUTY NURSE?				

UNIT V OCCUPATIONAL GROUP ARRANGEMENT (OGA)

Unit Objectives:

1. To summarize the organization of occupations by OGA.
2. To provide opportunity to review the major categories, groups, and divisions of the OGA.
3. To demonstrate how the OGA can be used in vocational rehabilitation.

INTRODUCTION: Earlier, we learned that the DOT has two major functions: definition and classification of occupations. In Unit IV, you learned how to find the definition for any of 12,099 base titles; now, we are ready to learn the classification methods and their rehabilitation uses.

Frequently, clients know that they want a job in a certain field, but they can't give a job title. Instead, they say something like "I only know I want to do something with translating foreign languages" or "I used to decorate tiles that get used in mosaics, but now I would like to supervise others."

Both of these statements relate to groupings of occupations but fail to provide a title than can be looked up in the alphabetical index. Fortunately, the DOT has classified occupations in a way which helps us use the DOT to find specific occupational titles and definitions from such general statements. The first of these classification methods is called Occupational Group Arrangement or OGA. The first three digits of the occupational code tell you the location within OGA where an occupation is located.

The first digit tells the Occupational Category - broadest grouping. There are nine Occupational Categories and they are listed on page xxxiv of the DOT. Open your DOT to that page. You will notice that:

- the first four categories have names which reflect traditional, socio-economic activities,
- the next four categories are based on industrial or trade terminology, and
- the last category contains occupations which didn't fit elsewhere.

Remember that every occupation is placed in one--and only one--category and that the placement will be reflected in the first digit of the occupational code. Thus, an occupational code that begins with 5 must be a Processing Occupation and a first digit of 7 tells you that the occupation falls into the Benchwork category. Each category has its own definition which is located in the body of the DOT just before the occupations in each category appear. The definition for the 0/1 category, for example, is found on page 15 because that is the page where the first occupation with a first digit of 0 is found.

Understanding the definitions of the occupational categories is critical to its efficient use. You must not try to use your definition of Benchwork or Processing Occupations. Time spent understanding these definitions now will save a great deal of time and frustration later. Incomplete or incorrect understanding of DOT definitions is the major reason why some people have difficulty using the DOT and erroneously conclude "it isn't useful!"

Look up and read the definitions of all nine categories. Remember that they are located at the beginning of each section of definitions. Notice that in addition to defining the categories, some important characteristics of workers are included.

UNIT V, EXERCISE I

Here is a list of occupations. Decide the category in which each belongs and write the correct single digit number next to it.

1. Sales Clerk _____
2. Janitor _____
3. Electronics Assembler _____
4. Carpenter _____
5. Wheat Farmer _____
6. Machinist _____
7. Biologist _____
8. House Painter _____
9. Truck Driver _____

When the second digit in the occupational code is combined with the first, the Occupational Division is known. These are more specific groupings of occupations which represent breakdowns according to:

- general types of knowledges or skills,
- broad subject matter,
- type of activity or service and the objective,
- materials, tools, equipment, work aids used,
- material or service which results.

Definitions of each of the 82 Occupational Divisions are found in the body of the DOT. As an example, the definition for the Domestic Services Division of the Service Occupations Category is found on page 223, before any of the 30x.xxx-xxx occupations are defined.

UNIT V, EXERCISE II

Pages xxxiv and xxxv have a listing of each Occupational Division. Turn to those pages and use the listings to provide the most likely two digit numbers for each of the following occupations. If you can't decide which of two Divisions an occupation is in, use the definitions to help you decide.

1. What are the first two digits of the occupational code for these occupations in:

   a) Theology _____ _____
   b) Packaging _____ _____
   c) Ore Refining _____ _____
   d) Fabrication of sand, stone, clay, & glass products _____ _____
   e) Forestry _____ _____
   f) Extraction of Minerals _____ _____
   g) Printing _____ _____
   h) Art _____ _____

2. What is the occupational division for these digits:

   a) 14_____
   b) 21_____
   c) 25_____
   d) 67_____
   e) 95_____
   f) 46_____
   g) 75_____
   h) 81_____

To complete the OGA, each occupation is assigned to an Occupational Group, based mostly on the technology used and/or the material, product, subject matter, or service that results. Note that the first three digits of the code must be known in order to locate the Occupational Group. Each Occupational Group is listed on pages xxxvi-xli of the DOT and defined in the body of the DOT. For example, the Household & Related (301) Group is defined on page 223 right after the definition for the Domestic Service Division (30) in the Service Occupations Category. All three definitions precede the first occupational definition of HOUSEKEEPER, HOME (301.137-010). Every section is organized in the same manner:

Occupational Category (1st digit) and definition,
Occupational Division (1st and 2nd digits) and definition,
Occupational Group (1st, 2nd and 3rd digits) and definition,
Occupational definitions in numerical order.

Let's go back now to those client statements that we discussed on page 26 of this unit. Here are the steps for taking those general expressions of interest and deciding which group of occupations might be investigated.

"I only know I want to do something with translating foreign languages."

First, underline the key occupational words; in this case there are only three.

Next, try and decide on the category. In this instance it may be necessary to eliminate categories that are obviously wrong--2 through 8 seem easily ruled out. By reading the definitions for Categories 0/1 and 9, it is clear that 0/1 is the most likely category. Of course if you happen to know something about translation, it is that much easier to decide.

Next, look at the Occupational Divisions 00/01 on page xxxiv. Occupations in writing (13) seems to be the most likely Division. Then, turn to page xxxvi and look at the Occupational Groups within the 13 Division. The 137 group is Interpreters and Translators. By turning to that group (page 80) we find four occupations listed that have to do with translating. Since our client said "translate" and "foreign," TRANSLATOR (137.267-018) is the most likely occupation. To provide the client with occupational information, however, we may suggest that she/he also read the definitions for INTERPRETER, and INTERPRETER, DEAF since they are closely related occupations which differ primarily in the method by which language is translated.

The process used was logical, deductive and may have involved some trial and error. But it works and becomes easier if you -

- understand the general OGA structure
- apply your own knowledge of occupations
- practice.

UNIT V, EXERCISE III

Using the above process, find the most likely group of occupations for this client statement.

"I used to decorate tiles that get used in mosaic designs but now I would like to supervise others."

NOTE: In order to do this problem, you need only one additional rule: While general managers are found in the 0/1 category, supervisors and inspectors are found in the category, division and group where the work they supervise or inspect is found.

Step 1: Underline the key words in the statement.

Step 2: Decide on the most likely category _____

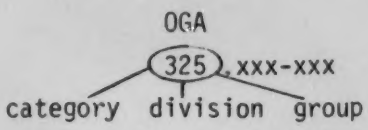
Step 3: Decide on the most likely division _____

Step 4: Decide on the most likely group _____

Step 5: List the occupational code number(s) for the occupation(s) which most closely match the the statement: _____

Let's summarize the important things about the OGA approach to organizing occupations.

1. All 12,099 in the DOT are assigned to one--and only one-- occupational category, division and group.
2. This assignment is reflected by the first three digits of the occupational code



3. Since occupational definitions appear in numerical order, they are also organized by OGA.
4. The categories, divisions and groups are listed on pages xxxiv-xli of the DOT.
5. Each category, division and group is defined in the body of the DOT, at the beginning of its section.

UNIT V, EXERCISE IV

Here are some more problems that can be solved by using your knowledge of OGA and the DOT.

1. What material is common to OGA Divisions 56, 66, 76? _____
2. What do workers in Occupational Divisions 56, 66, 76 do to that material?
   a) 56_____ it
   b) 66_____ it
   c) 76_____ it
3. What is the OGA code number for a person who:
   a) sells real estate _____
   b) drives a dump truck _____
   c) carves stone _____
   d) repairs electrical appliances _____
   e) manages a fast-foods restaurant _____
   f) tends bar _____
4. Provide the most likely job histories from the following OGA codes:
   a) 201_____
   b) 017_____
   c) 111_____
   d) 253_____
   e) 344_____
5. Here are statements about five occupations. Using your knowledge about OGA, find the correct occupational title and code for each. Then, read the definition and develop a work profile for each job, using the diagramming skills you learned in Unit III.

STATEMENT	OCC. TITLE	OCC. CODE	WORKER FUNCTION	IMMED. OBJECT	INFINITIVE	GOAL
a) I ran a machine that slivered almonds.						
b) I set up and ran an extrusion press that made metal tubing.						
c) I was a clerk for City Bus, Inc., and I assigned drivers to various routes.						
d) I worked for the power company cutting trees and limbs from getting too near the lines.						
e) I had to run stress analysis tests on various airplane parts to make sure they would stand the G-forces at high speeds.						

UNIT VI DATA, PEOPLE, THINGS (DPT)

Unit Objectives: 1. To introduce the concepts of DPT.

2. To provide practice in the use of DPT concepts.

3. To explain the career ladder concept of DPT.

4. To relate DPT with rehabilitation practice.

INTRODUCTION: Data, People, Things (DPT) is a method by which the complexity of occupations is identified in terms of the degree to which the worker must be able to function with data, people and things. By extension, the work capabilities and/or potential of people can be described by the same levels of data, people and things. Another term for DPT is "worker function."

Please turn to pages 1369-71 of the DOT and read them carefully. (Be sure to read those footnotes, too!) If, after studying these pages, you want additional clarification, another interpretation of DPT is found on pages 412-415 of the Worker Trait Group Guide. Notice that this explanation uses fewer technical words and would thus be easier to use with clients having poor reading skills.

SUMMARIZING DPT: Here are the summary points about DPT that you should have noted in the readings:

- Every occupation requires workers to relate to DPT, even if that relationship is a simple one.
- DPT levels are rank-ordered according to difficulty.
- Each DPT level is carefully defined.
- Each DPT level is summarized by an action verb descriptor ("handling," "diverting," "analyzing," etc.)
- Each DPT level is also identified numerically with the lower numbers representing the most difficult levels and vice versa.
- In each DPT hierarchy, each level includes the ones below it and excludes the ones above it. NOTE: This is less true for the people hierarchy than for the other two.

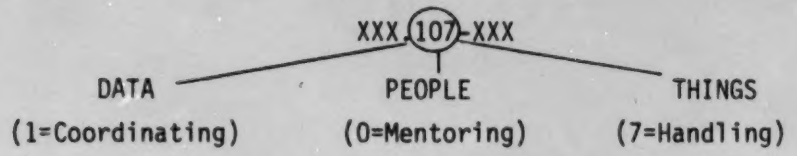
    - Workers who are able to function at the "tending" level are generally able to "handle" as well.
    - But workers who are able to function at the "supervising" level may not be able to "persuade."

There are several other things you should know about DPT:

1. In describing the combination of D, P, & T in relation to a particular occupation, the term "worker function level" is used since the three digits tell you "the level at which the worker must function for average successful employment." This does not mean that all positions in the occupation will require the same worker function levels!

2. Examples of work tasks for each DPT level are printed in the Handbook for Analyzing Jobs, Pages 73-83. These examples are helpful in distinguishing between levels and in explaining DPT to clients.

3. The DPT level for any occupation is contained in the occupational code:



4. You can usually learn why an occupation is assigned a particular DPT level by reading the action words in the occupational definition.

   In the example above, for instance, the action verbs in the definition are "counsels, interviews, evaluates, accepts, determines, plans, assists, aids, promotes, develops, refers." Note that these words relate primarily to people and data and at high levels. None of the words relate to things.

5. As the complexity level of people and things increases, so also does the level of data.

   - There are no occupations with high people or thing levels but low data levels.
   - The reverse is <u>not</u> true, however. Some occupations are largely data oriented. For example, writers have a DPT level of .067 and accountants .167.

6. As the complexity of DPT increases, other things may occur:

   - requirements for education and/or experience may increase
   - the pay levels frequently increase
   - the worker tends to have greater freedom in deciding <u>how</u> the work is to be done.

There are obvious exceptions to the above, so don't take them as hard and fast rules. The information is useful in vocational counseling, however. Here are some frequently heard statements about job goals. Using these guidelines and your other DOT skills, list the information that should go into an appropriate counseling response.

UNIT VI, EXERCISE I

1. "I know I don't read very well and I'm terrible at math, but it doesn't matter 'cause I want to quit school and become a construction carpenter like my brother."

2. "So I did drop out of school and haven't had much work experience; I need a job that pays real good if I'm going to have the things I want."

3. "The only job I've ever had was as a carpet-layer helper and I'm sick of always being told what to do. I want a job where I decide what to do without being watched every minute."

4. "For the last five years, I worked as a roving sizer at American Woolens, Inc., but they closed down. My cousin says he can get me in at Cannaco Co. as either a structural inspector or can technician. I want the one that will be as similar to my old job as possible in how difficult it would be. Which one should I look at?"

DPT AND CAREER LADDERS: As rehabilitation workers, we recognize that most of our clients will want--and be able--to move beyond the occupation that is initially selected. "Career Ladder" is a general term which describes a logical sequence of working one's way up from simpler jobs to ones which are more rewarding. By "working one's way up" we usually mean investing time to obtain experience, or further training or education, or a combination thereof.

We also know that in some fields, the education and training has to precede employment, while in others, it may come after a period of work.

- You become a physician by means of education, not by being an aide, then a nurse, then a family physician, then a surgeon.
- You are more apt to become a truckdriver by being a helper than by graduating from a special school.
- Clerks may become bookkeepers on the basis of experience. But bookkeepers usually have to obtain more education to become certified public accountants.

The DOT provides us with a lot of general information about career ladders by the way in which occupational definitions are organized:

- Within each OGA, occupations are listed by DPT.
- Occupations with the most complex DPT levels are listed before those with less complex worker function levels.
- Complexity of data requirements take precedence over people, and people worker function levels are considered before things. For example:
    - .365 would be listed before .465
    - .061 before .107
    - .107 before .117

Look up the 570 OGA as an example. Notice that the DPT levels begin with .131 (SUPERVISOR, CLAY PREPARATION) and decrease through 14 DPT levels to DPT .687 (BATCH MIXER). This is a fairly long career ladder.

- Note that some of the "rungs" have many occupations with the same DPT level.
- Note also that except for the higher DPT levels, this is largely a "things" OGA. Remembering the interrelationships of data, people, and things, however, you also see that as the "things" level becomes less sophisticated, so does the "data" level.
- A worker in this OGA could be quite "upwardly mobile" without leaving the occupational group although additional training or education might be required along the way.

The top or bottom rungs of a career ladder are not always found in the same OGA. In the example above, for instance, it might be company policy to use the position CLEANER, INDUSTRIAL 381.687-018 as the "entry level," from which a worker "moves up" to BATCH MIXER. And the occupations above SUPERVISOR, CLAY PRODUCTION, would logically be found in the 189 OGA--MANAGER, INDUSTRIAL ORGANIZATION, to PROJECT DIRECTOR to VICE-PRESIDENT to PRESIDENT.

We have just seen that a complete career ladder may not be contained within even a lengthy OGA. Since some OGA's are very brief (e.g., the 051. OGA

contains only one occupation), you will need to combine your DOT skills with your own occupational information to construct career ladders for most every situation. Here are some general rules to help you:

1. If the OGA for a particular occupation contains too few occupations of differing DPT complexities, use the OGA Summary Listings (Pages xxxiv-xli) to find likely, related OGA's.
2. The Occupational Divisions of 16, 18, and 19 are good places to look for administrators and managers.
3. The n.e.c. (not elsewhere classified) Occupational Divisions and Groups are helpful in locating related occupations.
4. The definitions of Occupational Categories, Divisions and Groups may provide clues to where related occupations are found. For example, the definition for OGA category 4 states that managerial occupations for agriculture are in Group 180. And the definition for the 18x Divisions explains the difference between "line" and "staff" occupations.

Before giving you a chance to apply your new knowledge about career ladders and DPT, we need to consider an exception to the rule that by listing occupations by DPT, the DOT also provides logical career ladders. This exception is clearly visible by looking at the way in which occupations in OGA 195 occupations in Social and Welfare Work, are arranged. Please skim the titles and DPT levels on Pages 143-146.

- You should have noted that the general trend is from most complex to least complex and the DPT levels range from 107 to 367.
- You probably also noted, however, that the caseworker is listed before the administrator or casework supervisor. Obviously, this is not a typical career ladder pattern.
- When there is a discrepency between DPT complexity and career ladder, the DOT gives priority to DPT. Case workers are required to have higher levels of people oriented skills than are supervisors for average, successful performance of their jobs. Therefore, caseworker has a higher DPT level and is listed first.
- In developing a career ladder, especially in the 0/1 Occupational category and the social services, this exception is likely to occur. It also occurs in some "industrial" occupations: a HEAD GREASE MAKER 549.132-010 is listed before SUPERVISOR, SPECIALTY PLANT 549.137-018, even though the former may "work up" to the latter!

USING DPT AND CAREER LADDERS: In this unit, we have learned several new ways to use the DOT in Vocational Rehabilitation by combining the concepts of DPT and Career Ladders with our other DOT skills.

- If we know the occupations in which a client has successfully worked, we can use DPT levels to estimate previous worker functioning levels.
- If a client has had a series of different jobs, we can evaluate the career pattern in terms of progression, regression or no movement.
- We can use work history to assess client ability to transfer job skills to new occupations.
- If client ability has been reduced by disability, we can seek occupations requiring less functioning in the area of D, P or T most affected.
- If a client's stated occupational interest is inappropriate in terms of DPT, we can find more appropriate occupations in the same OGA.

UNIT VI, EXERCISE II

To convince you that these things are possible, here are some mini-case examples. Read them carefully and then use your DOT skills to answer the questions which follow:

1. Joey wants to be "the kind of boilermaker that repairs boilers." You have good evidence that his DPT level is .667 and that he doesn't have any experience in this field. A.) What occupation could you suggest which would be consistent with the above information? B.) Is there another step on the career ladder which could be suggested after he has some experience? (Assume no increase in his DPT Level.)

   A. Base Title _____ Occ. Code _____

   B. Base Title _____ Occ. Code _____

2. Mary worked successfully for 5 years as a weather strip-machine operator before the company closed. She has two job possibilities at present: drum sander and glass-lathe operator. Which occupation is nearest to her former job in terms of worker function?

   Base Title _____ Occ. Code _____

3. Henry was running a jogging machine in a paper bag plant when he caught his arm in the machine. After being fitted with a prosthesis his employer offered him the same job, but Henry couldn't fan the stacks of paper or operate all of the controls. Your assessment suggests a maximum DPT level of .367. What occupation in the same OGA meets the client's wishes for a non-machine job that maximizes his worker functioning level and takes into consideration his limitations in dexterity?

   Base Title _____ Occ. Code _____

4. Alice wants to be a Tax Auditor and wants you to help her get the necessary training. Your assessment of test results and educational history leaves you wondering if she can learn the procedures necessary. Does her work history generally support her statement that she can be successful or not?

   - 3 years as legal secretary
   - Steno Pool Supervisor for 1 year
   - 4 years as general bookkeeper

   Yes_____ No_____

5. Jane wants to be a chef. At present, you assess her skills to be at the .687 level. Although she has good potential for increasing her Data and Things worker function levels, she will continue to have difficulty with People oriented tasks.

   A. What occupation related to cooking could she fill now?

      Base Title _____ Occ. Code

   B. How many other occupations in the same OGA could she progress to without an increase in the People level?

      _____

UNIT VI, EXERCISE III

Use the definition for OGA 091 - Occupations in Secondary School Education and the other skills you have learned in this unit to complete the following career ladder:

_____	_____.117-018
Assistant Principal	_____
TEACHER, SECONDARY SCHOOL	_____
_____	_____.327-010
_____	_____.367-074

On Page 12 of this manual, a brief explanation of each part of the occupational code was provided. Now, in Units V and VI, you have studied the OGA and DPT digits in detail. Do you recall what the last three digits signify? If not, quickly re-read the middle of Page 12.

Here is a bit more detail about those last digits:

1. Many occupations share exactly the same OGA/DPT codes. For example, there are sixty-six occupations with the code 692.685. Without the last three digits, we could not use the occupational code to distinguish between ABRASIVE-BAND WINDER 692.685-010 and ZIPPER-MACHINE OPERATOR 692.685-270.
2. The first title with a particular OGA/DPT code is assigned -010 as the third set of digits.
3. When more than one occupation has the same OGA/DPT code, they are printed alphabetically and assigned digits in multiples of four (010, 014, 018, 022, etc.).
4. In rehabilitation, the principal use of the last three digits will be to assure that the exact occupation has been indicated numerically.

UNIT VII

INDUSTRIAL DESIGNATION

Unit Objectives:

1. To introduce the industrial designation as one major method by which occupations are classified.
2. To provide practice in using the Industrial Designation.
3. To demonstrate uses of Industrial Designations in rehabilitation practice.

INTRODUCTION: We have already learned that occupations may be classified according to occupational group arrangement (OGA) and by the degree to which they require the worker to deal with Data, People, and Things (DPT). Classification of occupations can also be based on where the occupation is found. The industrial designation* (ind. des.) assigned to an occupation is shown in parenthesis immediately following the base title in each occupational definition.

Turn to page xix in the DOT and read the explanation of Industrial Designation.

Here are the summary points about industrial designations:

1. Industrial designations are based on the industry in which the duties, products, processes, raw materials, etc., are found.
2. Three hundred and four industrial designations are listed and defined in the DOT. All occupations are assigned to at least one industry; some are assigned to more than one. Some industrial designations are actually groupings of occupations, rather than places, e.g., "clerical," "professional and kindred," "machine shop."
3. Some occupations are found in such broad areas that they are simply shown as "any industry," e.g., a polisher could polish a very wide variety of items.

Please turn to page 1168 in the DOT and read the definition of "any industry."

4. Pages 1363-7 of the DOT contain a list of each industrial designation; the full title of each one is printed in capital letters but the abbreviations used in occupational definitions are also shown. The page number where each industrial designation is defined is also shown.
5. In addition to listing and defining each industry, you are also provided with information about related industries and an alphabetical list of each occupation in the industry and its occupational code.
6. Since all industries use cleaning, managerial and support staff, the list of occupations in a particular industry is not actually complete.

Let's review one industry as a sample. Using the alphabetical index to industries (pages 1363-7), find the listing for BALANCES AND SCALES INDUSTRY.

- Note that it is in capital letters and that it identifies the page number where the industry is defined.

- Note also that the same reference is provided under the abbreviation "bal. & scales."
- Turn now to page 1186.
- The definition tells you the identifying characteristics of the industry and notes that certain kinds of measuring instruments are found in another industry.
- All occupations within the industry are then listed alphabetically. Note that both base and alternate titles are listed along with their occupational codes.
- You will notice also that all the occupations in this industry are all in the 710. OGA (Occupations in fabrication and repair of instruments for measuring, controlling, and indicating physical characteristics.) If you turn to that OGA, however, you will discover that all the 710. occupations <u>are not</u> in the bal. & scales industry.
- In most instances, it will be quicker to look up an industry by using the index and then the definition and listing. Since the industries are listed alphabetically, however, you may choose to skip the index. If you do, remember that they are listed by abbreviated form, <u>not by full title</u>.

UNIT VII, EXERCISE I

Using your knowledge of industrial designations and your previously acquired DOT skills, answer the following questions.

1. On what page is the "can & preserv." industry defined? _____
2. What are the principle occupational groups found in the library industry? _____
3. What is the range of DPT levels found in the motor trans. industry? _____
4. Construct a career ladder for the auto. mfg. industry by indicating each possible DPT level. _____

UNIT VII, EXERCISE II

Here are three exercises which show how the DOT and particularly the industrial designation can be applied in rehabilitation practice. Remember, the Industry Index begins on page 1363.

1. Jack worked for 15 years at the Hank's Ornamental Metalwork Emporium (HOME) as an ornamental metal worker. After an injury when the staging collapsed while he was installing the plate glass frame in the Antelope Club in West Stewardston, Vt., he was unable to continue to do the climbing and lifting involved. Hank has told you he wants to keep Jack and is willing to give him any job in the plant at his old salary. You are asked to come to the HOME plant and suggest job possibilities. Before leaving the office, you review the medical record and find that Jack needs a job where he can move around frequently; he can no longer work with power tools or machines for long periods but can handle small tools and measuring devices. Given the above information, which two of the jobs in the HOME plant would most likely fit the client's physical capacities?

   _____

   _____

2. Sue is interested in the machine trades as an operator but wants to work in the electronics industry. In your counseling and history review, you and Sue have determined that she has high data and things ability but that she doesn't want extensive contact with people. Using the industrial designation, develop a list of possible occupations for her to investigate.

Note: Here is the procedure followed to arrive at these first choice options.

1 - Look up Electronics Industry, pages 1226-8.

2 - Skim Occ. Codes for Machine Trades Occ. Group (6).

3 - Select occupations with high Data & Things levels.

4 - Screen out alternate and undefined related titles which overlap with selected base titles. Of all the titles listed in the electronics industry, only these 4 remain after the above selection process.

_____ _____

_____ _____

3. You have been designated as the "Placement Specialist" for your rehabilitation facility. The Executive Director asks you to tour local businesses as a way of developing placement contacts and suggests that you begin at the B & C Awning and Canvas Company, whose president is a new board member at your facility. Since you want to be able to ask good questions and to relate their jobs with your clients, you go to the DOT for information. Here are four questions that would be logical to ask. Supply tentative answers which could be checked with the tour guide.

A. "What are some of your entry level jobs?"_____

_____

B. "What is the most skilled production job in the plant?"_____

_____

C. "Do you have any jobs for inspectors?"_____

_____

D. "What types of tools and equipment do your inspectors use?"_____

_____

UNIT VIII INTERIM SUMMARY AND CASE PRACTICE I.

Unit Objectives: 1. To review the essential parts of the DOT.

2. To provide practice in its uses in Vocational Rehabilitation.

You have now learned about each major section of the DOT and have practiced using the DOT on various rehabilitation-related tasks. Before moving on to studying DOT related materials, let's review what we have learned thus far.

First, we learned that a major function of the DOT is to provide occupational information by identifying the titles of occupations and then by providing information about:

WORKER ACTION	(Does what)
IMMEDIATE OBJECT	(To What/Whom)
INFINITIVE	(In order to)
GOAL	(To accomplish what)

We learned how statements by clients from case records can be diagrammed to organize the occupational information contained within them. This skill allows us to examine information and decide what is needed additionally. We also learned the parts of occupational definitions and the various types of titles.

Of the four ways of classifying occupations, we have thus far learned three: Occupational Group Arrangement, Data, People, and Things; and Industrial Designation. Each of these methods has uses in vocational rehabilitation. Now, as soon as we cover one final point, we will be ready for some final exercises to give you a chance to demonstrate your skills.

First, however, you should review the three ways of determining an occupational code and which methods to use under which circumstances. The three ways are:

- Use of OGA
- Use of Industrial Designation
- Use of the Alphabetical Index

Please read pages xxvi-xxviii in the front of the DOT. Note that the DOT authors are recommending that in most instances, the preferred way is by use of the OGA, but that the other ways are useful in certain circumstances.

Summary points from the reading:

- The most accurate way to determine the appropriate occupational title and code for a set of duties is via OGA.
  - Obtain relevant data about the job such as action verbs: "tending"; "inspects."
  - Use the OGA Summary (pages xxxiv-xli) to find the OGA numbers most appropriate.

- Scan the OGA until you find both title and description which fit the data previously collected.
- The Industrial Designations can be used when you have little other data but the industry. It is also helpful when client possibilities and/or interests are rather narrowly defined.
- The Alphabetical Index is used when you only have an occupational title - such as is found in a standard work history form. Now that you have learned that there are so many types of titles, you can see that the title is really not sufficient in itself. If you have to use it, confirm its appropriateness at the first opportunity.

The temptation to use the alphabetical index is difficult to avoid. In some cases it is a useful tool. In general, however, the accuracy of using OGA or Industrial Designations more than offsets the very little extra time involved.

By the way, a "speedy index" for locating DOT related information appears on page 127 of the index. You'll find it useful as a reference. You may find it useful to paste a copy right into your DOT.

Now, here are two exercises which will give you an opportunity to use all of your DOT skills to solve some typical case practice problems. The cases are taken from actual records, although all names, places, etc., have been changed to maintain confidentiality. You may use any of the methods learned thus far to locate the required information.

EXERCISE #1

Case History for Exercise #1

Name: Ronald Palumbo D.O.B.: 3/22/40

Address: 31 Appian Road Current Age: 38
Thomaston, R.I.

Education: High school graduate--1958
General course
"liked shop courses"

Service: "Right after high school me and this other kid volunteered for the Army. They sent me to school to be a redeye gunner and after I put in my three years, I got an honorable discharge in June of 1961."

Family: married in September, 1961 to Elaine Watkins
three children
Paul--16
Joseph--15
Ann--6

Housing: "We rented a house in Lawton for the past ten years but just bought a house in Thomaston when I got my new job. Thomaston is where my job is and it's only a few towns away from where we used to live. The house needs lots of work on it but I'm handy at fixing things and my wife likes to decorate and all that. My boys didn't want to change schools but they had to anyway. Ann could care less where she lives."

Work History: (Ron relates this information)

After I got out of the Army, I found a job at Eastern Watch Company. They had me running an abrading machine that polishes watch parts. I put on the cleaning agent and then after the machine polished them, I had to inspect them to make sure there weren't any scratches and to make sure it fit the specs. I worked about two years on that. Then I quit that job and went to the Metalex Machine Company where I moved up to a job where I set up and operated a belt sanding machine to polish various metal parts. It was really the same kind of job except the machine wasn't automatic so it took more skill to set it up.

I had an idea I wanted to better myself so I took blueprint reading and metallurgy courses in night school under the GI Bill. These subjects were pretty interesting to me.

After about five years on the belt sanding machine, I bid on a better job as a roll grinder with the same company and got it. Because it was all short run stuff, I had to really be good with the blueprints and specs. But I had no problem with that job and I did it for nine years. During this time, I took courses in supervision and management at night school though, so I could be ready if a real good opportunity opened up somewhere.

In July of 1977, I got lucky. I heard of this job opening at the J. B. Towne Machine Works in Thomaston. This is a small, non-union shop and they wanted someone to supervise and coordinate their grinding operations in the shop. The guy liked my record and could tell I knew the work so he hired me. I felt good about this because it was more money and more responsibility which was just what I'd been working for all these years. I even started to think I'd go even higher with this outfit.

Anyway, I quit my old job. We bought the house, moved, and got the kids in school and all that by the middle of September, and I started work on October 1st. Things looked really good. The work was right up my alley.

Physical Problem:

"On January 5, 1978, I was home fixing the broken stair railing in the hall when I began to feel funny. My head and neck ached on the right side and I was dizzy. My eyes blurred and I threw up. I remember my right leg was weak, real weak. They took me to the hospital. Later they told me I had had a stroke."

UNIT VIII, EXERCISE I

I. List the necessary information about Ronald's work history in the following columns. Include all positions since his graduation from school.

Job #	Base Title	Occ. Code	Indust. Design.	D	P Key Words	T
1.						
2.						
3.						
4.						
5.						

II. Discuss Ronald's progress up the career ladder in terms of changes in the DPT levels. Was the progress logical and orderly?

III. Based on the case study, what evidence is there that Ronald has sought vocationally-relevant educational opportunities?

Note: We will hear more about Ron in Unit XX!

Case History for Exercise #2

Name: Alice Pinkerton D.O.B.: 9/14/56

Address: 4 Willow Road Current Age: 22
Loyalton, N.H.

Education: Was in school for 14 years, mostly in special education classes. Was given "Certificate of Attendance."

Military Service: None

Family & Housing:

Lives with elderly parents. Mother continues to express interest and concern for Alice's future. Father is in ill health and primarily concerned with keeping the family business, a small motel.

Work History:

After "graduation" Alice was to attend a vocational training program but no referral was made. After 2 years at home, she was referred to the local sheltered workshop. No formal vocational assessment was conducted and Alice became a "regular" workshop employee.

When a formal assessment program was established in 1976, Alice's performance and capabilities were reviewed. The workshop staff felt that she may be able to function at a higher level if she can be provided with more salable skills. Alice stated that "I like working with my hands and moving around rather than sitting down all the time. I still do some of the cleaning at the motel. I like things that move, like machines."

Disability:

Mental retardation. Stanford Binet administered 11/5/73 showed I.Q. of 65. (See attached report)

60

1960 Revision Stanford Binet

DATE: 11/5/73
DOB: 9/14/56
C.AGE: 17-2
M.AGE: 8-2
I.Q.: 68

General Observations: Although Alice is small physically, she seems to have matured in many other ways. Her attention span and test reaction were normal.

Test Results: Basal Age - Year VI
Ceiling Age - Year XI

Summary and Interpretation: Alice has improved in vocabulary, but showed no other definite strengths. There was a weakness in verbal abilities. Comprehension a marginal failure at both Year VII and VIII. Vocabulary was counted a success at Year V, but some responses were barely acceptable.

Our view of the previous Stanford Binet test results shows that an error was made in recording the I.Q. on the previous tests. 1968 - I.Q.: 68, 1970 - I.Q.: 75.

UNIT VIII, EXERCISE II

The staff is considering four possible placements at this time. Although they will be assessing the client in more detail, they ask you to provide them with DOT-related information about the characteristics of the four jobs under consideration. Using the statements below,

1. Look up the Occupational Title, industry and occupational code number for each possible job.
2. Diagram the major occupational definition statements for each.
3. List any other information which may relate to client history and stated interests.

A. A local shoe manufacturer is offering a one week OJT program to prepare workers to examine heels for defects, sort them into pairs, and record the necessary information on tally sheets. They list the job requirements as "long periods of standing and mobility, no lifting; must have good vision and tactile senses."

Occupational Title: _____ Occupational Code #: _____

Industrial Designation: _____

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL

Other Relevant Information

_____

_____

_____

B. A local furniture manufacturer is looking for workers to assemble frames for sofas and chairs. A six week OJT is provided during which workers will be taught how to use power and hand tools to fit the pre-cut parts into a frame. Workers must be able to lift up to 30 lbs. and able to use such measurement devices as square and straight edge. The work environment is noisy and dirty.

Occupational Title: _____ Occupational Code #: _____

Industrial Designation: _____

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL

Other Relevant Information

_____

_____

_____

C. The manager of the local Holiday Inn is advertising for a building maintenance worker to assist the Building Maintenance Supervisor with cleaning. The job would involve both inside and outside work. The worker would be responsible for maintaining the conference rooms, halls and lobby areas but not guest rooms.

Occupational Title: _____ Occupational Code #: _____

Industrial Designation: _____

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL

Other Relevant Information

_____

_____

_____

_____

D. The workshop manager has a contact at Fanny's Friendly Restaurant and Grill and knows that as a large modern facility, the restaurant is frequently in need of workers. Using the client's interest statement, what job would be most appropriate to consider, based on the information available to you? Develop at least three (3) diagrammed job duty statements.

Occupational Title: _____ Occupational Code #: _____

Industrial Designation: _____

WORKER ACTION	IMMEDIATE OBJECT	INFINITIVE	GOAL

This completes Units II-VIII of the manual. Having completed all the exercises, you are now able to locate and describe work activities for any job or combination of jobs. Now you are ready to learn how to assess the worker requirements of jobs and the work characteristics of people. After you complete Units IX-XIX, we will provide you with more activities regarding Ronald and Alice.

UNIT IX INTRODUCTION TO WORKER TRAITS

Unit Objectives:
1. To present and discuss the evolving concept of worker traits.
2. To summarize the potential uses of worker traits in vocational rehabilitation.
3. To introduce the Vocational Appraisal Summary (VAS) Form SR.
4. To present the format used in Units X-XVIII.

INTRODUCTION: Thus far, you have learned three major ways in which occupations are classified:

- by Occupational Group Arrangement (OGA)
- by Data, People, Things (DPT)
- by Industrial Designation (Ind. Des.)

The main volume of the DOT contains all of the information required for use of these organizational approaches. In earlier units, we have seen how each of the approaches can be applied in rehabilitation to gather and present occupational information. This is, however, only half of the person/job "yardstick." The fourth way of classifying occupations allows us to organize information both about occupations and about people. Thus, it is a very important and helpful tool for rehabilitation workers. In order to fully understand its uses--and limits--we need to look at a bit of its history.

The practice of grouping occupations by worker traits first appeared in the DOT in 1965. You will recall that the two major types of information gathered in the job analyses which form the basis for the DOT, are the work performed and worker requirements. It was the characteristics included in these "worker requirements" which became the basis for arranging occupations by Worker Traits--called Worker Trait Arrangement or WTA.

All occupations were sorted into 114 Worker Trait Groups (WTG's) so that they would be "homogeneous with respect to estimated worker trait requirements."[1] Although seven factors from the job analyses were used to assign each occupation to a WTG (interest, temperament, general educational development, specific vocational preparation, aptitudes, physical demands and working conditions), the 114 groups were also very well differentiated in terms of DPT levels.

This system for grouping occupations by worker traits required for minimum, average, successful performance was found to have a great deal of applicability to vocational rehabilitation and was used for such diverse rehab-related activity as work sample development, counseling and case review procedures.

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[1]Droege, R. C., & Padgett, A., Development of an interest-orientated occupational classification system. Vocational Guidance Quarterly, 1979, 27(4) 302-303.

From a technical standpoint, however, the original worker trait groups were not completely satisfactory and the Department of Labor decided to replace them. In their current version, occupations were first grouped into one of 12 broad interest areas and then into 66 groups. Many of the original worker trait factors were used in classifying occupations into the new structure which DOL has labeled simply "Work Groups." There are at least four significant differences between the "old" and "new" groups.

1. By sorting roughly the same number of occupations into 66 rather than 114 groups, the average number of occupations per group is obviously greater. This suggests that there will be more variation between occupations within the same group.

2. The interests used for the "old" structure have been replaced by the 12 new areas. Since all occupations are first grouped by these interests, they become relatively more important than factors such as aptitude, although most of the same factors were used in both classifications.

3. In the original WTG structure, occupations in a particular group had similar worker function (DPT) levels. This meant that the groups could be used in considering lateral job transfers. In the current groups, three distinct levels are usually present--entry level, skilled workers, and first line supervision.

4. The interest factors originally used did not lend themselves to measurement, e.g., use as the basis for developing interest inventories. This will be possible with the new groups.

A ROSE IS A ROSE.....

As you can already see, there is considerable confusion between "old" and "new" ways of classifying occupations according to work/worker characteristics. It seems likely that the debate over which approach and which term is best will continue for some time to come. In the meantime, one term and one approach must be selected for use in this manual.

The most accurate term is probably Worker Requirement Group (WRG) since it best describes an approach to classifying occupations which is based on common requirements for average, successful employment. It is not, however, a widely recognized or accepted term. The term Work Group (WG), advocated by the Department of Labor likewise suffers from very limited recognition; it is also easily confused with the DOT term "Occupational Group" from the OGA classification. This leaves the widely recognized term Worker Trait Group (WTG). It's major drawback is that in common usage it is frequently equated with inborn, unchanging characteristics which people either have or don't have. Such an inference is unfortunate and not altogether fair since the precise meaning of the word trait is simply characteristic and we are aware that characteristics do change, expecially those which are work related.

For the purposes of this manual, therefore, "Worker Trait Group" will be used. The reader is asked to remember, however, that vocational rehabilitation is the business of helping people to qualify for occupational performance and that a wide array of treatment and training services are available to assist clients in developing the characteristics required for successful performance in a position.

It should also be noted that in discussing and writing about worker trait groups, professionals must be careful to identify which approach is being used. Since the same terms may be used, it is best to refer to the 1965 version (the "old" 114 groups) or the 1979 version (the "new" 66 groups).

Now that the decision has been made to use WTG as the preferred term in this manual, it is necessary to select the WTG version most consistent with the purposes of this manual. The 1979 version is not yet widely accepted, but has several advantages not shared by the earlier version. Specifically:

- It is available. The 1965 version is out of print and can no longer be purchased. The 1979 version is readily available from a variety of sources. (See page 197)

- It is based on more recent job analysis data. The 1965 version uses data gathered nearly twenty years ago. Conversely, data in the 1979 version was reviewed as recently as 1977.

- It is more reflective of the current job market. In addition to the above, the 1979 version includes 2,100 occupations not listed in the 1965 version. You hardly need to be told that there have been many changes in the labor market in the past twenty years. Some of these changes have been particularly severe in certain OGA and Industrial subgroupings.

- Since the new classification approach emphasizes interest, it is much more useful in today's client centered approach to assessment and exploration.

- Well developed, highly useful materials related to the 1979 version are available commercially. In addition to those demonstrated in this manual, nearly every form of commercially available occupational information is being modified to be compatible with the most recent DOL publications.

For these reasons, this manual will focus exclusively on the 1979 version of Worker Trait Groups and will provide extensive exposure to its uses in vocational rehabilitation.[1]

PUBLICATIONS ABOUT WORKER TRAIT GROUPS

In the Guide for Occupational Exploration (hereafter referred to as DOL Guide), the Department of Labor describes each of the 66 WTG's and lists each occupation contained within. You should read pages 1-2 of the DOL Guide to acquaint yourself with the way in which this information is organized.

Much, but not all, of the information obtained from the 75,000 job analyses has been included in the DOT and DOL Guide. Other data from those same job analyses is available only in the two books published by McKnight Publishing Co. The Appalachia Educational Laboratory Inc. (AEL) has arranged this material in a very usable format as part of a larger, career decision making program. Since

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[1] If you are interested in learning about the 1965 version of WTG, see the Dictionary of Occupational Titles, Third Edition, Vol. II, 1965.

all three of these publications contain different data about the WTG structure, you must have access to all three to complete this manual and apply it with your clients.

Please check now to be sure that you have Career Information Guide, Worker Trait Guide and Guide for Occupational Exploration.

Before we move on, let's review the most important points:

1. A fourth way to organize occupations is by the characteristics or traits most likely to be required of workers for average, successful performance. The most widely accepted term for this classification method is Worker Trait Group (WTG) arrangement.

2. The 1979 version of WTG places all occupations in one of twelve broad interest areas and then one of 66 Worker Trait Groups.

3. In order to obtain all of the information gathered about WTG's, three reference books must be used, DOL Guide, WTG Guide, and CIS Guide.

4. The above publications are based on the same job analysis data used in the DOT, fourth edition and may thus be considered as direct occupational information; you should use it with the same degree of confidence--and caution--as other DOT data!

There are some differences in terminology between the DOL Guide and the WTG Guide. For a detailed discussion of these differences, please review pages 194-196 of the Appendix.

USES OF WORKER TRAIT GROUPS:

There are three major ways in which rehabilitation workers will use worker trait concepts. Combined, they make this organizational structure the single most helpful portion of the DOT to rehabilitation workers.

1. It is a way of organizing information about clients in vocationally relevant terms. If we consider case record material in light of what it tells us about a person's worker traits, we will find that its relevance to V.R. becomes clearer. The factors included in the worker trait structure are basic to the "yardstick" approach to person/job matching. They are helpful in selecting appropriate diagnostic services, reading and writing reports, and in selecting appropriate rehabilitation treatment services.

2. Of the four ways of organizing occupations, WTG is the easiest to use with clients. Clients readily relate to grouping occupations first by interest and then by requirements; the terms used have commonly accepted meanings and high face validity; easy to use self-rating instruments are commercially available; the structure is readily incorporated into most counseling settings and helps organize counseling time.

3. The occupational information contained in the DOL Guide and the AEL/McKnight WTG Guide is a rich source of occupational information not available elsewhere. It is readily used and when combined with staff knowledge and skill, is more applicable to jobs and positions than most other types of information.

In Unit X, Worker Trait Groups will be explained in detail. Then in Units XI-XVIII, each worker trait area will be reviewed and you will have a chance to use them to compare your worker characteristics with the ones required for occupations in which you are interested.

> By the way, there are eight worker trait factors and together they are called the Qualifications Profile (QP)*. The QP forms a major portion of the Occupational Yardstick discussed on pages 5-6. You might want to go back and review that section. (The QP factors are the last eight.)

In each of the units on the QP, you will follow the same procedure:

- First, you will learn about the particular worker trait factor.
- Second, you will rate your own worker traits using a self-rating form especially developed for this manual. (Since these forms assume that you have done some reading first and because they contain instructions related to this manual only, they are not appropriate for use with clients. Commercial versions of the self-ratings for Work Activities, Work Situations, and Aptitudes are available from McKnight Publishing Co.)
- Third, you will be asked to record your self-ratings plus relevant information from the WTG Guide on a form which will help you compare your traits with the likely worker requirements for occupations in which you are interested. Before moving on, let's look at this form.

Turn to page 128. You will use this Vocational Appraisal Summary, Form SR (it is 5 pages long) in units XI-XIX. Remove the entire form from the manual. (Pages 134 to 138 are a duplicate of Form SR, so don't hesitate to write on this one.)

1. Enter your name in the upper left hand corner of each page of the form.
2. On page 1, where the word TITLE and column 4 intersect, enter the DOT base title which is closest to your present position.

   (Many of you will use one of the following titles: Vocational-Rehabilitation Counselor - 045.107-042, Supervisor - 188.137-010, Rehabilitation Center Manager - 195.167-038, or Caseworker - 195.107-010. Others will wish to review the following OGA codes to select a title more appropriate: 045., 094., 166., 187., 188., 189., 195., and 249. You may also wish to review the NONPROFIT MEMBERSHIP, CHARITABLE AND RELIGIOUS ORGANIZATIONS. Note: The DOT does not carry an appropriate title or occupational description for Vocational Evaluator! If you do not find another title or description that fits, the one for Vocational-Rehabilitation Counselor should be used for the purposes of this exercise.)
3. In the spaces where the word TITLE and column 5, 6, and 7 intersect, enter the base title of three occupations in which you might be interested in the future.
4. Use the DOT to enter the correct occupational code and industrial designation for each of the 4 occupations.
5. On pages 2, 3, and 4 of the VAS-SR form, enter the appropriate titles at the top of column 4-7.

This form may seem complicated to you right now. You will be given step-by-step instructions, so don't worry! It will make sense after you finish Unit XX. BUT PLEASE, DON'T TRY TO GET AHEAD OF THESE INSTRUCTIONS!

As you learn about each of the worker requirement areas (shown in the extreme left-hand columns of Pages 1-4 of the VAS), you will be asked to do three things:

1. Rate your own work characteristics as they are today (column 1) and the extent to which you believe your present characteristics could be changed (column 2).
2. Think about how you could "defend" your self-ratings with "evidence" (column 3).
3. Use the DOT and related materials to find the most likely worker requirements for each of the four occupations in columns 4-7.

In Units XI-XVIII, you will learn how to complete each of these activities for each of the worker trait areas, so don't get ahead! In Unit XIX, you will complete the person/job match for yourself and learn what you may have to do to "get from where you are to where you want to be."

UNIT X

WORKER TRAIT GROUPS

Unit Objectives:

1. To explain the 12 interest areas and 66 Worker Trait Groups.
2. To provide practice in identifying the WTG in which an occupation is found.
3. To describe the content of WTG descriptions.

INTRODUCTION

As you learned in Unit IX, the fourth method of classifying occupations is by interest, capability and adaptability and that the most accepted term is Worker Trait Group (WTG). In developing this classification approach, occupations were first grouped into 12 interest areas, then into 66 Worker Trait Groups, and finally, into 345 subgroups.

> Turn to page ix of the WTG Guide and read about the interest and worker trait groupings. Next, turn to pages vi-viii and read the titles of the areas and of the 66 Worker Trait Groups. Then read pages 328-325 in the DOL Guide for additional detail. You will notice that the interest areas are easily identifiable by the use of orange bands.

Here are several points you should remember:

1. Occupations were first grouped by interest and then by capability and adaptability. This means that interest was the first consideration in the assignment of occupations to groups.

2. The 66 Worker Trait Groups in current use were obtained by subdividing the occupations in each interest area according to capabilities and adaptabilities required of workers.

   - Capabilities relate to such factors as General Education Development (GED)*, Aptitude*, Specific Vocational Preparation (SVP)*, Physical Demands (PD)*, and Working Conditions (WC)*.

   - Adaptabilities are primarily the tolerances required for job-worker situations and are called Work Situations (WS)*.[1]

3. Since some of the 66 WTG's contain a large number of occupations, subgroups were developed. The formulation of 348 subgroups was based on a variety of factors which are not listed in DOL publications to date. It does not appear, however, that a uniform set of standards was applied. Since the subgroup titles (shown only in the DOL Guide) are obvious descriptors, we may wish to breathe a sigh of relief that we seem to have avoided yet another classification system to learn!

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[1]Droege and Padgett, page 308.

4. A six digit number is used to identify the interest area, worker trait group and subgroup in which an occupation has been classified, e.g., 10.01.02.

   - The first two digits identify the interest area, e.g., 10. represents the Humanitarian interest area.

   - The second pair of digits identifies the WTG within the interest area, e.g., 10.01 refers to the Social Services WTG within the Humanitarian interest area.

   - The third pair of digits identifies the subgroup in which an occupation is placed, e.g., 10.01.02 refers to counseling occupations in the Social Sciences WTG and the Humanitarian interest area.

Please turn to page 277 in the DOL Guide. You will see that the occupations in 10.01.02 are listed by industry. This method of combining two classification approaches should assist you in working with that client who has no stated vocational goal, but some preferences for industries and work activities.

5. Data about interest areas and WTG's is presented in the WTG Guide in numerical order. As an example, the Humanitarian interest area is defined and discussed on page 305 at the beginning of the 10.xx section. Material about WTG 10.01 begins on page 306.

6. The WTG Guide does not contain any reference to subgroups, for which the Guide for Occupational Exploration must be consulted.

7. The CIS Guide contains titles and definitions for each interest area and Worker Trait Group (pages 24-36).

8. There are two ways to find out the WTG in which an occupation is placed.

   - An index in the DOL Guide contains the six digit WTG code number for each of the DOT occupational codes.

   - You can usually locate the proper WTG for an occupation by using an "estimating method" similar to that used to find a DOT definition using the OGA approach:

     - determine the proper base title for the occupation,

     - review pages vi-viii of the WTG Guide to select the most likely interest area,

     - select the most likely WTG within the interest area,

     - skim the sample occupations at the end of each WTG section. These occupations (in orange background) are those most prevalent in both the WTG and the labor market. You may not find the exact title, but will probably be able to locate occupations very similar to the one you seek.

UNIT X, EXERCISE I

To show you that the assignment of occupations to interest areas and WTG's is very logical, use the estimating method to complete these 10 problems.

Find the occupational code, interest area, and WTG for each of the following base titles:

		Occupational Code	Interest Area	Worker Trait Group
1.	FARMWORKER, VEGETABLE			
2.	POLICE OFFICER			
3.	JOCKEY			
4.	REPORTER			
5.	VOCATIONAL-REHAB. COUNSELOR			
6.	AIRPLANE PILOT			
7.	SHROUDER			
8.	TRUCK DRIVER, HEAVY			
9.	DRIVER, SALES ROUTE			
10.	SHOE PACKER			

Obviously, some occupations will be harder to locate using this "estimating method" than the ones above. Use of the Guide for Occupational Exploration will be quicker and more accurate. We believe, however, that it is better to understand than to just "look it up."

Now that you know how to "estimate" the proper WTG for an occupation, please turn to page 336 in the DOL Guide. This is the first page of a very useful index which lists all base, alternate, and undefined, related titles together with the industrial designation, occupational code number, and six digit WTG code.

Contents of the WTG Profiles

Each WTG contains information of use to rehabilitation workers and their clients.

Please read pages x-xvi in the WTG Guide for a detailed description of each section of a Worker Trait Group. Then, turn to WTG 10.01 and review it to assure that you understand how the material is organized. You need not study the details of each QP area as that will be covered in later units.

For now, you should know that in addition to detailed information about the qualifications generally required for successful performance of occupations, the WTG Guide can provide you with information about:

- typical occupations and work settings for the WTG.
- activities and work performed in the WTG.
- requirements of the worker.
- clues for relating client history with the WTG.
- typical ways of preparing for occupations in the WTG.
- other factors which should be considered.
- the qualifications profile details.
- samples of occupations contained in the WTG. (Remember, a complete listing is found only in the DOL Guide.)

This manual assumes that each of these categories of information should be available to both staff and clients before vocational goals and plans are made. The AEL/McKnight materials have been specially developed to make the information more understandable but for some clients you will have to help with some of the technical words and concepts. You will also find that several of the categories are useful in interviewing clients.

UNIT X, EXERCISE II

Here are some exercises to help you become familiar with these parts of the WTG information.

1. What is the major difference between WTG's 05.01 and 06.01 in terms of Preparation? _____

2. Would WTG 05.01 or 06.01 most likely be appropriate for a student who liked and did well in auto repair courses but disliked and did poorly in math and science courses? _____

3. Mary likes to work with machines and can type rapidly, but she has a severe speech impediment. Would you predict she would prefer occupations in WTG 07.04 or 07.06? _____

4. Pete can qualify for most occupations in either WTG 08.01 or 08.02, but prefers that customers come to him. Which WTG is more likely to appeal to him? _____

5. Jane wanted to be a physician, but found it was too "scientific" and not enough "people oriented." She has excellent ability in all areas and still wants to "help people." What WTG's would you suggest that she explore? _____

Before we move on, there are three additional things you should know about WTG's.

1. The assignment of occupations to the 12 areas was made on the basis of interest, work field, and worker requirements. A very large percentage of those 12,099 base titles ended up in just two of the areas:

INTEREST AREA	01	02	03	04	05	06	07	08	09	10	11	12
%	2.6	1.7	2.2	.8	20.0	57.7	4.8	1.7	1.6	.9	4.8	.3

   - This means that you will want to be very familiar with WTG's 05 and 06.
   - Since over half of the occupations have been fitted into only four WTG's (06.01, 06.02, 06.03, and 06.04), you will want to be especially knowledgeable about them.
   - The examples of occupations listed in the WTG Guide will represent only a fraction of those actually classified in the "bigger" WTG's.[1]

2. We can use our skills with OGA, DPT, and Industrial Designation to further subdivide occupations listed in a WTG.

UNIT X, EXERCISE III

For example, look on page 322 of the WTG Guide. Notice that all of the occupations listed fall into two occupational categories.

1. How many are Service Occupations?_____

2. How many are Professional, Technical, or Managerial Occupations?_____

Notice also that there are 10 different DPT levels represented and that, in general, the DATA and THINGS levels are average while the PEOPLE levels are low.

3. Which occupation would be most suitable for a person with a very high THINGS level?_____

4. Are there any occupations in this list which require PEOPLE levels above SPEAKING - SIGNALING?_____

[1]According to Landrum and Strohmenger ("A basic in educational and agency career counseling: The new DOT," Vocational Guidance Quarterly, 1979, 27(4), 297-298), the unbalanced distribution of occupations that is noticeable throughout the DOT and related publications is a reflection of a general emphasis on industrial occupations. Although such an emphasis is understandable in view of the placement patterns in local Department of Employment Security offices (i.e., Job Service), it is frustrating to rehabilitation workers because client goals are rarely so concentrated.

By combining your skills in two or more classification areas, you can thus "refine" or "narrow" some of the larger WTG's to more manageable sizes.

3. After the DOL analysts looked at the results of the 75,000 position analyses, they had very specific information but it was directly applicable to only 9% of all the positions in the country. By combining the information into job and then, occupational descriptions, they broadened its general usefulness but reduced its specificity.

   (For example, the occupational definition for CLEANER [any ind.] is no longer specific to what a particular worker does, but is generally helpful in describing the duties of a cleaner.)

In developing the WTG's, the process of sacrificing specificity for general information is continued. Although we will learn a great deal about the worker requirements of groups of occupations, we will not be able to assure that the information applies to all occupations in the group or all positions in an occupation.

- We cannot use WTG data to conclude that client A can (or can't) function successfully in position X.

- We must use the WTG data as basic guidelines and then obtain more specific information before making a decision about a particular person/job match. We obtain this information in a variety of ways:

  - by reviewing the DOT definition for clues.

  - by considering our own occupational information and experience.

  - by talking to employers and workers.

  - by conducting a job analysis on the position or job in question.

UNIT XI ESTIMATING WORK ACTIVITIES (W.A.)*

Unit Objectives:

1. To explain the concept of work activities as applied in vocational assessment.

2. To demonstrate methods of helping people identify their preferences for some work activities as opposed to others.

3. To explain uses of the Worker Trait Group Guide, the Dictionary of Occupational Titles and the Handbook for Analyzing Jobs in determining the work activities most likely associated with specific occupations and occupational groups.

INTRODUCTION

The word "interest" has a variety of meanings but generally refers to "liking," "preferring," or "feeling positive toward" a person, place, event, or activity. In rehabilitation, we are very much concerned with the vocational interests of our clients. This includes both the occupations in which they are interested, and the activities which they appear to enjoy and prefer. Hopefully, their occupational interests and their preferences for activities will be compatible and we assume that this is necessary for success. If, for example, a person expresses an occupational interest in becoming a machinist but dislikes activities involving tools and machinery, we would question the appropriateness of that occupation for that individual.

Thus, we can use a person's preferences for certain activities as a tool to determine (or confirm) occupational interest. Actually, there are three types of interest data which should be considered in vocational assessment:

stated interest	- what a person says about his/her vocational preferences and aspirations,
measured interest	- his/her responses to a standardized measure of vocational interest,
demonstrated interest	- the types of activities in which the person actually engages and his/her reaction to these activities.

In general, the more consistent these three types of interest data are, the more confident one can be about a person's vocational aspirations. When all three data sources yield consistent, compatible information, we may feel that the person's preferences are sufficiently differentiated to suggest readiness for this aspect of career choice. When, however, each of the three areas yields conflicting data, further vocational and personal exploration is indicated.

Demonstrated interests may be assessed by discussing what an individual has done in the past and what he/she liked or disliked about it. It is also possible to use work samples, job tryouts, and other activities to provide firsthand experience with an activity to use as a basis for deciding whether it is enjoyable or not.

Information about a person's measured interests is derived from standardized tests and inventories. Some of these require previous occupational information on the part of the client and must be selected with care. A measure which includes both occupational preferences with activity preferences is most likely to prove appropriate and helpful.

Stated interests can obviously be obtained by direct questioning but especially with young people, this is apt to be frustrating for all concerned. In these instances, a more structured approach - such as the Work Activities Checklist that follows - may be helpful.

In developing job analysis methods, it was found that a wide variety of work related activities could be summarized by ten statements which depict worker preferences.

Please read Appendix A of the WTG Guide (pages 408-409) for a description of the ten types of work activities.

Most occupations involve more than one work activity and most people react positively to a small group of the activity statements which can thus be used to describe their preferences. Let's become better acquainted with logical groupings of work activities by completing the following exercise:

UNIT XI, EXERCISE I

Use the material on pages 408-409 of the WTG Guide to match the occupations in the right-hand column with the work activity patterns on the left. As an example, activities dealing with things and objects (WA 1), activities of a routine, definite, organized nature (WA 3), and activities involving working on or producing things (WA 10) describe the activities encountered by a piano tuner better than any of the other patterns presented. Therefore, a "B" has been placed on the line next to the first work activity pattern. Look at each of the other patterns, decide which of the listed occupations it matches best, and enter the correct letter on the blank line.

	WORK ACTIVITY PATTERN	OCCUPATION
1.	B 1, 9, 10	A. bank manager
2.	_____ 5, 6, 8, 10	B. piano tuner
3.	_____ 2, 5	C. physician
4.	_____ 4, 5, 8	D. sculptor
5.	_____ 4, 5, 7	E. social worker

In developing your skill with work activities (and especially in explaining them to clients) some examples of each are helpful. Many examples for each of the work activity types are to be found in the Handbook for Analyzing Jobs.

Turn to page 317 in the Handbook. You will note that the activities are called interest factors but that the statements are identical. The difference simply reflects a change in terminology between the Handbook and the WTG Guide. You will also note that a different numbering system is used. To avoid confusion, we suggest that you "correct" the Handbook to conform with the WTG Guide by changing the numbers on page 317 (and as they appear on pages 318-322) as follows:

OLD	NEW	OLD	NEW
1a	1	1b	6
2a	2	2b	7
3a	3	3b	8
4a	4	4b	9
5a	5	5b	10

You may also find it easier to refer between the two books by entering the Handbook page number for examples of each work activity in the margin of Appendix A of the WTG Guide:

WORK ACTIVITY	1	2	3	4	5	6	7	8	9	10
HANDBOOK PAGE #	317	318	319	320	321	318	319	320	321	321

Please read several of the examples of each work activity to clarify the definitions and differences.

Thus far, we have considered the relationship between work activity preferences and vocational interests and have studied the definitions of each of 10 work activity types with some examples of each. Now you are ready to relate work activities to a person - yourself. We want you to rate your own preference for each of the work activities by completing a checklist. The checklist you are about to use was designed for your use with this manual. It is recommended that other formats, such as those discussed in Unit IX, be used with clients. We believe you will find it helpful to complete the following activity yourself before assisting clients to identify their work activity perferences.

Please turn to Appendix C of this manual and remove pages 180-181. We suggest that you keep your WTG Guide open to pages 408-9 and the Handbook (pages 317-322) at your fingertips. As you complete the checklist, consider the following additional factors:

- Some of the work activities will have been involved in jobs you have already had. Use your experiences, but differentiate between the job and the component activity.
- Some of the work activities will relate to hobbies or leisure activities. Use these experiences to help you decide whether you like a particular work activity.
- Your preferences and dislikes regarding school subjects and activities can also be related to work activities.
- Remember, you are rating your preferences for certain types of work activity, not particular jobs or your ability to perform them!

A final word on the use of self-rating forms to assist clients in determining their own vocational characteristics: It is usually better to encourage self-assessment before the client has reviewed the characteristics of occupations in which he or she states an interest. By separating self-assessment from occupational exploration, data gathered in each step is more useful as a diagnostic tool and in counseling and decision making.

Now that you have rated your own interests in the various work activities, let's find out what work activities are involved in the Worker Requirement Groups in which you have expressed an interest. The most common work activities found in each WTG are listed in the WTG Guide. This does not mean that every work activity applies to every occupation in the group or that an occupation may not involve work activities other than those coded for a WTG. You must make a decision as to which specific work activity applies to that particular job. Your professional judgement and personal knowledge of the job will be required. You can also get helpful information by looking at the occupational definition in the DOT.

> For example, a CLEANER, HOUSEKEEPING, 323.687-014, is in WTG 05.12. Job analysts found that workers performing occupations in this group preferred work activities 1, 3, 9. However, work activity #9 really doesn't apply to CLEANER, HOUSEKEEPING, as defined in the DOT. By reading that definition and the examples of WA #9, we think you'll agree. Thus, you would not include this descriptor in a profile for the occupation, even though it is listed for the WTG in which CLEANER is found.

This type of professional judgement can be based both on your review of the DOT information and your own occupational information. If you are unsure where a characteristic is applicable, you should obtain further information.

Locate the Worker Trait Group description for the occupation shown in column 4 of the VAS. (WTG's are listed in numerical order in the WTG Guide.) In the Qualifications Profile (Q.P.) Section of the WTG Guide, several work activities will be listed. Read each one and decide if it relates to the occupation in which you are interested as well as the broader WTG. It it does, put YES in the appropriate box in column 4. If the work activity is listed but you are not sure it applies to the particular occupation, place a "?" in the box to show that you need more information. If you feel sure a work activity is not involved in the occupation, even though it may apply to the group, leave the box blank. If you feel that, based on your knowledge of the occupation, another work activity is important, put "Yes?" in the appropriate box. Repeat these steps until you have considered the work activities for each occupation you placed at the head of columns 4-7 on the VAS. Be sure to enter your responses in the proper boxes.

Here is an example of the process. If you had listed CASE AIDE as an occupation in which you are interested and entered the title in column 5, you would have consulted WTG 10.01 to determine the likely work activities. Work Activities for the Social Service WTG are listed on page 310 of the WTG Guide. You could probably decide fairly easily that Case Aides are involved in Work Activities 4 and 6 so you would put "Yes" in the appropriate boxes in column 5. The DOT definition of CASE AIDE supports these judgements. Work Activity 9, however, is a different matter. It seems unlikely that an entry level worker

would be involved in much creative thinking since such jobs have a fairly low DPT level and because the other workers in the WTG are most apt to delegate routine tasks to the aide. Therefore, you might wish to ignore WA 8 but put a "?" in the appropriate box for WA 3.

You might also question WA 5 but since it is difficult to determine whether the case aide would perform tasks which would result in appreciation of others, you might choose to put a "?" in that box. This means that you would want to find out more about this factor, especially if receiving appreciation and praise is important to you.

By the above process, you have added your own occupational knowledge to the data available in the WTG Guide and made a judgement as to its applicability to a specific occupation. You would need to obtain additional information about those aspects of the job which you have questioned. You might do this by interview or formal job analysis.

The above process is essential if clients are to be protected from misused data. We shall refer to this process as "purifying the OP" since we use clinical or professional judgement to refine DOT data.

Now, you should have completed all of the columns on Page 1 of the VAS. Our last step is to compare the work activities you are interested in with those for the occupations in columns 4-7. Let's start with your present job.

- Do the "Yes" entries in column 1 match with the ones in column 4? If the match is exact, we might conclude that your work interests are compatible with the work activities on your job.
- If you have "Yes" entries in column 1 where there are blank spaces in column 4, we might wonder if you have work activity interests which don't get satisfied on your job. (There is no rule which requires that your job satisfy all your interests. Perhaps you satisfy them through hobbies?)
- If you have "No" on a line in column 1 where there is a "Yes" in column 4, it probably identifies an area where your interests and the activities likely to be found in that occupation are in direct conflict. Circle the areas in column 4 to indicate where this conflict occurs. If there are several circles, it suggests that you don't feel your job is meeting many of your needs for engaging in certain types of activities.
- Repeat the process for each of the other columns. If you consider that your interests conflict with items in columns 5-7, circle that aspect of the occupation. Chances are you will find that some of the occupations you thought you were interested in are more compatible with your preferences than are others.

You have now completed that portion of the work profile that compares your preference for work activities with those most likely required for several occupations.

This type of checklist has obvious uses with clients. It is reasonably brief and easy to use, is "scored" quickly to allow for immediate feedback, and can be used as part of a vocational counseling interview. It is especially useful with persons who lack clearly defined interests and always yields specific groups of occupations for further study.

There are at least two ways in which the results of the checklist can be used in vocational exploration. Let's briefly consider them.

1. On page 41 of the CIS Guide, the WTG's are organized under the work activities. By comparing a person's strongest preferences for work activities ("would like very much") with this listing, it is possible to locate WTG's which are compatible. For example, a person with preferences for WA 1, 3, 9 and 10 would likely find occupations of interest in WTG's 05.10, 06.02, 06.03, and 06.04 since those four WTG's involve all four work activities.

2. Look at pages 156 through 158 in the Appendix. Column 2 provides the code numbers for work activities in each WTG. By just skimming that column, you can see that only WTG's 05.10, 06.02, 06.03, and 06.04 have WA's 1, 3, 9, and 10. Additional WTG's could be explored if the person changed priorities to just 1, 3, 9 or 1, 2, 3, 9. Remember:
   - this exploration results in groups of occupations, not individual jobs or positions.
   - interest in specific work activities is simply one of eight worker trait areas.
   - this exploration process is more useful and valid when the person is asked to self-rate before having access to the WTG data.

As professional rehabilitation workers, we have the obligation to determine the vocational relevance of case material. One way to do it is to consider data in light of what it says about a client's preference for work activities. To help in this process, form VR (page 140) of the VAS was developed. Two of these forms have been included at the end of Appendix A.

Look at one of them and note the differences from form SR (page 128):

- Two additional columns have been added to allow rehabilitation workers to rate clients both as they are presently and their potential.
- The "document" column becomes the responsibility of the professional and the rating code changes.

One final note: For each of the subsequent worker trait areas discussed in Units XII-XIX, you should follow the same process:

- Read the explanations of the worker trait factors in the Appendix of the WTG Guide.
- Read examples in the Handbook to help clarify the factors.
- Rate yourself by using the appropriate activity sheet in Appendix C of this manual.
- Look up the worker trait factors in the WTG Guide for the occupations represented by columns 4-7.
- Purify or refine the WTG ratings for the specific occupation in which you are interested.
- Compare your self-ratings with the entries in columns 4-7. Use a circle to identify the job characteristic which conflicts with your self-rating.

UNIT XII ESTIMATING WORK SITUATIONS (W.S.)

Unit Objectives:
1. To explain the concept of work situations.
2. To identify resources helpful in understanding and rating the work situations to which people can adapt.
3. To explain uses of the WTG Guide to determine the work situations involved in occupations.

INTRODUCTION: In every occupation, the worker is presented with situations to which he/she must adjust. The worker's ability to adapt to these situations is referred to as temperament. Job analysis experts have identified ten types of Work Situations to which workers must demonstrate the "temperament" to adapt.

Please read Appendix B (Pages 410-11) of the WTG Guide to learn about the work situations.

Most jobs require workers to adjust to more than one of these situations. You can probably estimate the work situations for many jobs.

UNIT XII, EXERCISE I

For example, match the occupations in the right-hand column with the work situation patterns on the left. Place the letter for each occupation next to the most likely work situation pattern.

		WS Pattern		Occupation
1.	_____	1,3,4,5,7.	A	Airline Pilot
2.	_____	6,7,8,10.	B	Piano Tuner
3.	_____	7,10.	C	Physician
4.	_____	7,9,10.	D	Sculptor
5.	_____	1,4,7,8.	E	Social Worker

We can also use the same factors to describe the work situations to which a person is able and willing to adjust. As already noted, we generally use the word temperament when we are referring to people. For example, "John has the temperament to adjust to work situations requiring frequent duty changes (1) but is unwilling to be responsible for planning and directing an entire activity (3)."

The Handbook contains examples of the work situation factors to help you decide whether they apply to an occupation or person.

Please turn to page 295 in the Handbook. You will note that a different coding system is used and that the work situations are arranged differently. To make it easier to use the Handbook, we suggest that you make the following changes:

1. On page 295, enter the new WS numbers next to the temperaments.

D	F	I	J	M	P	R	S	T	V
3	9	5	7	8	4	2	6	10	1

2. Enter the following Handbook page numbers in the margin of Appendix B of the WTG Guide. (pages 410-11)

WS	1	2	3	4	5	6	7	8	9	10
Handbook Page #	309	305	297	304	299	306	301	302	298	308

Read several examples of each work situation to clarify their definitions and differences. Notice that each WS is defined and that you are provided with both general and specific examples.

Now that you have read about work situations, it is time to rate yourself. Please turn to pages 182-183 in the Appendix and complete the activity entitled Work Situations Checklist. As you rate yourself, consider your work experience, hobbies, and school activities. You may use the Handbook examples to help you make decisions. Remember, work situations should be self-rated on the basis of both ability and willingness to adapt.

Now, use the WTG Guide to find the work situations associated with the Worker Trait Groups in which you have expressed interest.

1. Find the WTG in which your present job is located. Locate the WTG description in the WTG Guide.
2. Turn to the QP section and read each of the WS statements.
3. If it applies to your present occupation as well as to the WTG, enter a "Yes" in the appropriate box in column 4.
4. If a work situation does not apply to your occupation, leave that box in column 4 blank.
5. If you are not sure whether a statement applies to your occupation, place a "?" in the appropriate box.
6. Repeat the process for the occupations in columns 5-7. Be sure to enter the "Yes," or "?" in the proper boxes on page 2 of the VAS.

Here is an example of the process using the CASE AIDE occupation previously discussed. Case Aides are found in the WTG 10.01 for which the work situations are 1, 3, 4, 7. Case Aides certainly deal with people and probably make decisions based on personal judgement. It is very unlikely, however, that they plan and direct entire activities because they are usually working under close supervision and direction. Whether or not their duties change frequently will probably depend mostly on the particular work setting. Based on these judgements,

you would probably enter "Yes" in the boxes for 4 and 7, a "?" in box 1 and leave box 3 blank.

Again, you have made some judgements based on your knowledge of the occupation. If you have had extensive contact with case aides, you may feel very comfortable with the judgements you have made. If, however, you are uncomfortable with those judgements, you will have identified them (?) and thus remember that they need to be checked, either by further occupational research or interview.

Compare the work situation ratings you assigned to yourself with those in columns 4-7. Identify conflicts by circling the occupational characteristic if it appears significantly different from your reaction to it. The more circles you have for a particular occupation, the more potential conflict.

As we said earlier, perfect job/person matches are very rare. On the other hand, too many conflicts will make satisfactory work adjustment difficult at best. However, vocational rehabilitation services can be provided to improve the job/person match.

> For example: If an occupation requires planning and directing an entire activity and a person feels unable to adapt to this situation, counseling or specific remedial services may be available.

We should also note that selective placement or job modification can be used to remove or reduce an occupational requirement which a person can't meet.

THE IMPORTANT POINT IS THAT WE CANNOT HELP THE CLIENT ADAPT, NOR CAN WE ATTEMPT TO CHANGE THE JOB REQUIREMENTS, IF WE DON't KNOW ABOUT POTENTIAL CONFLICTS. USE OF THE "YARDSTICK" PROVIDES THE REHABILITATION WORKER WITH SPECIFIC, VOCATIONALLY RELEVANT INFORMATION!

There are four other points that should be made about Work Situations (although they also apply to most of the other yardstick areas).

1. The occupational definitions in the DOT are an excellent resource to help you decide whether or not a work requirement factor listed for a WTG also applies to a specific occupation in that group.

UNIT XII, EXERCISE II

Let's try an example. The occupational title INSTRUCTOR, DANCING is in WTG #01.05. The WS #'s for the WTG (Performing Arts, Dance) are 3, 4, 7, and 9. Look up the occupational definition and record action words and phrases which document the need for these temperaments.

WS #	Key Words/Phrases
3	_____
	_____
4	_____
	_____
	_____
7	_____
	_____
9	_____

2. The ten work situations can also be used to decide whether a rehabilitation facility is appropriate for evaluating a specific client.

Think of a particular rehabilitation facility in your area.

- Which work situations can they replicate?
- Are the work and supervision provided clients suitable just for a few work situations - such as 2 and 8?
- Would you expect that facility to be able to evaluate clients when you want to know about temperament patterns 1, 3, 9? - 2, 8, 10? - how about 4, 5, and 7?

Although there is no way to "check" the answers to these questions, this exercise should help you:

- identify another use for work situations,
- decide whether you have sufficient information about the rehabilitation facilities available to your client,
- decide between facilities for a specific client.

3. You can get clues about your clients by applying work situation and work activity codes to statements made by clients about their experiences. Although it is not possible to get clues from every statement and it is essential that we not make decisions until we see consistent patterns in the data, use of these and other yardstick indicators help.

UNIT XII, EXERCISE III

List the most likely WS and WA clues contained in these client statements about their work experiences. Remember, they are only clues!

	W.S.	W.A.
"I direct the local concert orchestra."	_____	_____
"I fed data into the computer."	_____	_____
"I called customers to get them to buy insurance policies."	_____	_____
"I organized a new sorority in college."	_____	_____
"Last summer I liked my job. I ran a machine which attaches felt bands inside hats."	_____	_____
"I worked as a fire fighter for the U.S. Forest Service."	_____	_____
"I was responsible for all of the vocational evaluations at our Center."	_____	_____
"I performed surgery and specialized in brain tumors."	_____	_____

4. Work situations can be used in WTG exploration by use of the index on page 46 of the CIS Guide or by scanning column 3 of the Master Comparison Chart, pages 156 to 158 of the Appendix.

UNIT XIII ESTIMATING GENERAL EDUCATIONAL DEVELOPMENT (GED)

Unit Objectives:

1. To explain the concepts included in General Educational Development.
2. To identify resources useful in determining GED levels for people.
3. To explain uses of the WTG Guide to determine the GED levels for various occupations.

INTRODUCTION: General Educational Development* is a method of summarizing the general results of formal and informal education in three subareas:

1. Reasoning Development which includes demonstrated ability to use data to decide on a course of action and correctly follow directions.
2. Mathematical Development which includes demonstrated ability to use numbers and mathematical symbols as "tools" in accomplishing tasks.
3. Language Development which includes demonstrated ability to use writing, reading and speaking skills as "tools" in accomplishing tasks.

Each of these subareas is arranged in hierarchical form with the number 1 used to represent the lowest or simplest level, and the number 6 representing the highest or most complex level.

The rationale used for the GED definitions is described on page 209 of the Handbook for Analyzing Jobs. You will also want to review the summary table for GED levels found on pages 210 - 211 and the examples for each subarea at each level. These are on pages 212 - 220. Please review all of these sections so that you will feel comfortable with the concepts of GED.

When job analysis data is collected, the levels required in all three subareas (Reasoning, Math, Language, hereafter abbreviated as RML) are determined. A single number is then assigned to represent the GED level as a whole. The number chosen is the HIGHEST number reflected by reasoning, mathematical, or language.

> For example, if an occupation is found to generally require level 3 in reasoning but only level 2 in math and language, the Total GED level will be listed as 3.

You will note that Appendix G of the WTG Guide also explains the concept of GED, but only in terms of reasoning. The GED data for each WTG is, however, based on reasoning, mathematics, and language. Thus, we suggest that you use the Handbook for Analyzing Jobs's explanation of GED.

Obviously, many people have uneven GED skills and abilities. By using RML detail, we can refine the job/person match and make it more helpful in predicting and assuring successful vocational rehabilitation outcomes.

Remember that GED skills can be obtained through formal studies or through life experiences. Here is a table which provides GENERAL GUIDELINES ONLY. Use it cautiously!

GED LEVEL	FORMAL EDUCATION	EXPERIENCE
6	Graduate degree.	Outstanding, creative accomplishment.
5	Undergraduate degree.	Professional, administrative, artistic or civic accomplishment.
4	High school graduation with college preparatory courses or Voc. Technical curriculum.	Successful work experience in an organized work technology.
3	High school graduation with less demanding curriculum	Successful work experience requiring common sense understanding to solve problems.
2	Successful completion of elementary school and/or some high school.	Successful work experience involving standardized duties.
1	Completion of less than elementary school.	Can read safety signs, follow simple directions, make change.

Notes:
1. If in applying this table, you find that some clients have had experiences at a different level than their formal schooling, the experience is usually a better estimate of their GED.
2. In evaluating education and experience, consider the extent to which it is recent. GED skills "rust" quickly for many people!

Use the Handbook table and examples to rate your own GED skills. Turn to the Appendix, page 184 and complete the activities as instructed.

NOTE - When you rate the GED skills for a person, the Total must be the lowest number assigned to RML since to do otherwise would indicate a higher overall skill than is actually present. (Reminder: When rating the GED requirement for a job, the Total is the highest number assigned to RML.)

Now that you have rated your present and potential GED levels, let's try a practical problem requiring judgement about GED levels. Since the WTG Guide will list only the total GED level for each WTG and because there are many occupations within each WTG, it is necessary for us to use the occupational definitions from the DOT to estimate details about GED.

UNIT XIII, EXERCISE I

Your client has difficulty with higher level math but wants to be a bookkeeper. Based on her training, education and work experience, you have rated her total GED level as 3 although her reasoning and language ability are at a 4 level. You discover that bookkeepers are included in the 07.02 WTG and the GED level for the group is listed as 3-4. You know this means that most occupations in the WTG are at level 3 while others are at level 4. You also note that there are two listings for bookkeeper. Read their occupational definitions to decide which one would be most suitable and defend your answer.

The bookkeeper I II (circle one) occupation is most suitable because:

_____

_____

_____

_____

Now you are ready to gather GED data on the occupations identified in columns 4-7 of the VAS. Here are the steps you should follow:

1. Determine the GED level for the WTG in which each occupation is listed. Be sure to read the explanation of why a particular GED level has been assigned to a WTG. This explanation is in the GED section of each WTG.
2. Look up each occupation in the DOT and read the definition.
3. Use that information and any that you already have about the occupation to decide on RML and total ratings.
4. When you have rated each occupation, compare them with your self-rating in column 1. If your ratings are lower than any in columns 4-7, circle the subgrouping level for the job.
5. Compare any circled areas in columns 4-7 with column 2. If column 2 is still lower, put an X in the circle - indicating that you have rated your skill and potential as lower than the level you think the job will require. If your self-rating of potential is equal to or higher than the circled number, it stands as a reminder that you think you would have to improve your skill for successful functioning on that job.

Now that you have completed a comparison of your GED skills and potentials with those required for average successful employment in several occupations, you are nearly ready to move on to the next WTG factor. First, however, let's take a minute to consider the potential value of getting your clients to rate their own skills and potentials.

There is research to suggest that people achieve at levels which are consistent with self-perception. If you are considering an educational program for a client, a self-rating of the outcome (grades, etc.) may likely be as accurate

a predictor as test scores, references, past performance, etc. Thus, you increase the chances for a successful outcome if the client perceives his/her potential as sufficient for the task.

Secondly, by encouraging the client to self-rate vocationally relevant personal characteristics and relate them to job requirements, increased participation in rehabilitation planning and decision-making becomes a reality. Further, the activity becomes a vocational exploration experience in itself.

Finally, self-assessment activities can be utilized as counseling tools which expand and deepen the relationship between practitioner and client. Counseling is a service which can be directly rendered (as opposed to "purchased" or referred) and self-rating facilitates discussions which are focused on vocational decision-making.

We hope you will recognize the many benefits of use of these DOT-related materials with clients. In subsequent units, we will discuss additional uses and some of the application techniques.

UNIT XIV ESTIMATING APTITUDES (Apt.)

Unit Objectives: 1. To explain the concept of aptitudes.

2. To identify resources helpful in understanding and rating aptitudes demonstrated by people.

3. To explain uses of the WTG Guide to determine the aptitudes required for various occupations.

INTRODUCTION: The worrd Aptitude is used to refer to many different personal characteristics. It is frequently used to mean the same thing as ability or achievement. In this manual, these three words have distinct meanings:

Achievement	- what you have accomplished.	-(Past)
Ability	- what you can demonstrate.	-(Present)
Aptitude	- the quickness or ease with which you can learn.	-(Future)

The Department of Labor identified 11 aptitude areas as being particularly relevant for average successful performance on jobs. They also use 5 levels to identify the amount of aptitude required for a group of occupations or demonstrated by a person.

Please read about the aptitudes and their levels by reviewing Appendix F (pages 421-422) of the WTG Guide and page 233 of the Handbook. If you want examples of work tasks which require each aptitude at the various levels, you will find them on pages 233-294 of the Handbook. As a minimum, we suggest that you read the brief explanation of each aptitude found at the beginning of each example set in the Handbook.

Now that you have read the explanations of Aptitudes and their levels, we are going to ask you to rate yourself. You may use the examples in the Handbook to decide between levels. You may also use the examples found on pages 53-63 of the CIS Guide. These examples are school and hobby-related as opposed to the work related examples of the Handbook.

Turn to pages 185 and 186 in the Appendix and complete the self-rating activity.

Now, that you have rated your aptitude levels, you will want to complete columns 4-7 of the VAS to show the most likely aptitude levels for each WTG in which you expressed an interest. You will find the most important aptitudes for each WTG listed in the qualifications profiles in the WTG Guide.

Go ahead and enter the aptitudes for each occupation in columns 4-7. When you have done this, circle those occupational requirements which appear to be higher than either of your self-estimates. This indicates that the occupation may require learning at a level higher than you think you can achieve.

Obviously, both sides of the yardstick may need some revisions before deciding that an aptitude requirement is significantly greater than your aptitude. There are at least two types of questions which should be asked:

1. Were you accurate? Did you overestimate or underestimate your ability?

   You could answer these questions by looking again at your history or by using assessment techniques such as tests, work samples, etc.

2. Does the WTG data reflect the requirements for an individual job or position which you might consider?

   Answers to this question require more occupational research by means of interviews or actual observation of workers on the job. A good beginning is to review the occupational definition to see if it contains information which suggests the types of aptitudes involved.

Sometimes, you may conclude that the client's self-ratings are accurate and that most positions in the occupation will require aptitude levels above those of the client. That doesn't mean the client must find a different occupational goal since selective placement or job modification may be options. You may wish to consider a longer training program to help the client learn the skills required for a particular job. Although some aptitude levels may not change as a result of training and practice, others do. By using the occupational yardstick, however, you will know where the most likely problems exist.

UNIT XV SPECIFIC VOCATIONAL PREPARATION (SVP)

Unit Objectives:

1. To explain the concepts of specific vocational preparation.
2. To identify resources useful in understanding and rating the amounts of SVP to which people aspire.
3. To explain uses of the WTG Guide to determine the SVP requirements for various occupations.

INTRODUCTION: Specific Vocational Preparation is the amount of time required to learn the techniques, acquire the vocationally-significant information and develop the skill required for average successful performance as a qualified worker. SVP is specific, vocationally related training as distinct from GED which is the general development of reasoning, math and language ability. Success in occupations requires a combination of both SVP and GED.

SVP can be obtained in a variety of settings which offer:

Vocational Education
Apprenticeship Training
In-plant Training
On-The-Job Training
Experience in one job which is preparation for a higher level job

The concepts of SVP and details of its content are found on page 209 of the Handbook for Analyzing Jobs. The levels of SVP and examples of work tasks at each of the levels, are on pages 220-229. Please review these sections so that you feel comfortable with the concepts of SVP.

It is important to understand the differences between GED and SVP as related to client history. The titles themselves are helpful in that GED refers to general learning while SVP relates to specific time required to learn the techniques and skills of a particular occupation. (Normal orientation time is not included in either GED or SVP.)

UNIT XV, EXERCISE I

1. Here are some examples taken from client histories. Indicate whether they refer to GED, SVP or are simply work experience.

   a. Completed high school in the general studies program _____

   b. Spent two years in trade school. _____

   c. Majored in Liberal Arts in college. _____

   d. Three years in a plumbing apprenticeship. _____

   e. Ten years as a cost accountant. _____

   f. Six-week course in selling sponsored by my company. _____

   g. Two years as a co-pilot before becoming a pilot. _____

   h. Two years as a rehabilitation secretary before becoming a rehabilitation counselor. _____

   i. Half-time training in quality control taught by the QC Technician. _____

   j. Two days orientation as produce clerk at A & P. _____

   k. Graduate degree in psychology. _____

2. Use the Handbook as a guide in deciding the probable SVP's in the following occupations:

   a. Surgeon _____

   b. Criminal Lawyer _____

   c. Trucker's Helper _____

   d. Barber _____

   e. Laundry Route Driver _____

   f. Electronics Trouble Shooter _____

   g. Mail Order Clerk _____

   h. Nurses Aide _____

   i. Salesperson, high fashion clothing _____

Application of the SVP code numbers to people requires that we understand another difference between GED and SVP.

> Ability to successfully complete training is primarily a function of GED and Aptitude. Willingness to devote the required time is SVP.

Thus, when we ask a client to think about the SVP for an electrical-appliance repairer, we are asking about his/her willingness to invest the 1-2 years of preparation usually required. We are not asking if they feel they have the ability to learn the specific skills or work with the tools and equipment. Also, we are not asking if they have the financial resources to pay for the training. As important as these factors may be, they are not part of SVP.

A critical factor in "willingness" is recognition that students, trainees, and apprentices usually have to accept a subordinate role--they are assigned to helper or "flunky" tasks. Workers with prior experience in another occupation frequently find this loss of status very difficult to accept. Also, family members may express their objections to the learner role by urging the person to "quit and get a real job." You have probably known people who failed to adequately consider the time required to prepare for an occupation. Such people find that in dreaming of "being a fully qualified worker in a specific occupation," they didn't consider the stressful, time-consuming process of "becoming" qualified. SVP self-ratings can be a very useful preplanning and counseling tool!

Please turn to page 187 in the Appendix and rate your own SVP.

Now that you have completed the SVP self-rating activity, you are ready to compare your rating with those of the occupations in which you expressed an interest.

The most prevalent SVP requirements for each WTG are listed in the WTG Guide. Two or more SVP levels are usually listed, partly because the occupations within a WTG require varying amounts of vocational preparation. Also, however, any given occupation and position may require varying preparation periods. This is especially true for occupations for which preparation is attained through several routes. For example, the principle route for the preparation of physicians is education. Therefore, if you know the speciality, you can probably assign a single SVP number, even though there are some differences in various areas of the country. For occupations such as accounting, however, there are several ways of obtaining the training and thus, several possible SVP's.

All of this means that you will either have to accept several SVP's for a particular occupation or "refine" the available data by obtaining more occupational information.

- Each WTG explanation will give you some clues.
- The Occupational Outlook Handbook (also published by the Department of Labor) is another good source.
- Professional and technical associations and unions are excellent resources for this type of information.
- Employers and workers may also be contacted.
- By reading the DOT definition for an occupation and comparing it with the examples in the Handbook, you can usually decide how long a training period is likely to be required.

Look up the SVP ratings for each occupation in which you are interested and record the code numbers in columns 4-7. Then, compare each of these ratings with your self-rating in column 1. If the number in column 1 is lower than the ratings in columns 4-7, circle the occupational rating. This signifies that the occupation probably requires a longer training period than you want.

Now compare your entry in column 2 with those in column 4-7. If any of the circled ratings are still above (longer) than your self-estimate, put an X in the circle. This suggests that you simply don't feel able to participate in a training period as long as this occupation evidently requires.

Finally, you should know that the WTG Guide contains some other information about preparation for occupations.

Turn to Appendix H in the WTG Guide and read pages 425-427.

For each WTG, you are provided with information as to:

- whether or not the occupations require prior experience,
- the types of formal training required,
- high school level courses which are related.

For an interesting picture of the relationship between high school subjects and WTG's, see page 47-51 in the CIS Guide.

Since these three types of information were <u>not</u> collected by DOL as part of the job analysis process, they must be considered as <u>indirect</u> occupational information. They do, however, have uses with clients.

For example, the School Subject - Worker Trait Group Chart in the CIS Guide can be used:

- to suggest groups of occupations for review by clients who "don't know what they want to do," but had favorite subjects in school; <u>OR</u>
- to help students who have a job area in mind to identify related school subjects to be taken; <u>OR</u>
- to examine client educational history in relation to stated vocational goals.

UNIT XVI ESTIMATING PHYSICAL DEMANDS (PD)

Unit Objectives:

1. To explain the concept of Physical Demands.
2. To identify resources helpful in determining the physical demands which clients are able to meet.
3. To explain uses of the WTG Guide in determining the physical demands of occupations.

INTRODUCTION: Even when we are not concerned with the special placement problems of the physically disabled, we recognize that the demands for bodily movement and strength must be considered in the person/job matching process. For the disabled, these factors are even more significant.

Please review pages 325-331 in the Handbook to understand the six Physical Demand (PD) factors and situations in which they are, and are not, important. You may then wish to review Appendix D in the WTG Guide for a brief, easy to read summary.

You should have noted that considerable judgement is required to decide whether a factor applies to a specific occupation. For example, for dining car waiters/ waitresses and flight attendants, balancing (PD#2) is a requirement; waiters and waitresses in regular restaurants do not need to have unusual equilibrium, however.

You should also have noted that except for strength (Physical Demand #1), the factors are not defined in terms of degree - they either apply or they don't. This means that you must judge the degree yourself and decide if it is significant. Such judgement takes practice.

Finally, you should have noticed that each PD factor has more than one component (e.g., there are 4 components--reaching, handling, fingering and feeling--in PD#4). The DOT data will tell you only if a factor is generally required. it will not provide any sub-factor breakdowns. Yet, we know that some clients can finger and feel, but have difficulty with handling and can't reach.

Again, judgement will be required. You may have to analyze a job to determine which sub-factors are actually required in a specific setting. The DOT assumption that if one sub-factor is present, so are the rest, will not be sufficient for rehabilitation workers! If you decide that a particular factor or sub-factor is beyond the capability of your client, you will have to base any final decision on information you obtain as to the demands of the job goal and the specific position.

Please turn to page 188 in the Appendix of this manual and rate your own physical capacities.

In considering the physical demands for occupations, the WTG Guide is obviously our first resource since the characteristics required for average successful performance in each WTG are listed. Since, however, WTGs were not organized primarily on physical factors, there is a considerable difference between the physical demands of various occupations within a given job grouping.

As an example, let's look at the demands for two occupations in the 05.07 WTG.

- According to the qualifications profile for the WTG, the PD factors of L, 3, 4, 6 are required for most occupations therein.
- The WTG descriptive sections headed "Worker Requirements" and "Clues" suggest not only 4 and 6, but most of their sub-components as well.

UNIT XVI, EXERCISE I

Let's now compare the definitions for two of the occupations in the 05.07 Group. Look up and read the definitions for AIRPLANE INSPECTOR and WATER-QUALITY TESTER. Record the most likely physical demands for each. List key phrases and words which help you decide on a factor.

AIRPLANE INSPECTOR

_____

_____

_____

_____

_____

WATER-QUALITY TESTER

_____

_____

_____

ALL DOT definitions do not contain detailed descriptions of the physical demands although you can usually get a good indication of what will be most likely involved. Before you visit an employer about a specific position, you will want to prepare additional questions to obtain more detail. For example, you would want to know whether a Water-Quality Inspector would have to be able to engage in PD #2 and #3 in order to "observe operation of a mill effluent system." Such a system could be so extensive and complex as to require much walking, climbing, etc.

Using the DOT definitions for each of the occupations in columns 4-7 of the VAS, and the information in the appropriate WTG's, estimate the physical demands required and record your responses on page 4 of the VAS.

Then compare the physical demands for each occupation with the physical capacities in column 1. Circle any requirements which exceed your entry in column 1. This indicates a difference between your current physical capacity and the estimated demands of the occupations. Now look at column 2 of the VAS. Are your potential physical capacities as indicated by your responses, still below those required for the occupations in column 4-7? If so, put an X in the circled areas. This indicates that even with a maximized physical capacity, you believe the job would likely require more physical capacity than you have.

It may be that discrepancies between physical capacities and physical demands can be resolved by general conditioning or as a result of restoration services. Alternatively, it may be possible to restructure the job itself, provide tools and machinery to reduce its demands, or simply find a job where the usual demands are not required. All of these alternative methods of resolving the inconsistency would be considered before concluding that the person/job match is inappropriate. Identification of such problems and consideration of alternative solutions are two critically important functions of the rehabilitation worker.

It is very important to remember that the information about Physical Demands (and working conditions) was based on job analysis and requirements for "average, successful performance." They were not considering the possibilities for job adaptation or modification. Thus, WTG data may not be used to decide that a client cannot function in an occupation. It may be used to suggest likely employer preferences, the way in which a position is currently structured, etc. It is up to the professional to obtain such additional information as is necessary to decide whether or not a satisfactory person/job match can be developed.

A variety of publications deal with job modifications. One such document deals very specifically with job modifications for the physically disabled using a DOT based approach is:

Alfred, W. G., An Inventory of Job Options for Persons With Upper Extremity Impairments and Less Than a College Education. Houston, Texas: Rehabilitation & Training Center No. 4, Baylor College of Medicine, the Institute for Rehabilitation and Research, 1979.

UNIT XVII ESTIMATING WORKING CONDITIONS

Unit Objectives:

1. To explain the concept of Working Conditions.
2. To identify resources helpful in determining the working conditions to which individuals are able to adapt.
3. To explain uses of the WTG Guide in determining the working conditions of occupations.

INTRODUCTION: The physical surroundings of a person/position setting make demands on one's physical capacities over and above those made by the work itself.

For example, a structural-steel worker has to lift, climb and balance, stoop and kneel, etc., which are physical demands of the occupation. Also, however, such workers are confronted by demands on their physical capacities by the conditions under which they work - bad weather, excess cold, noise and vibration, etc. It is these demands that are called Working Conditions in most DOL publications but sometimes the term Environmental Conditions* is also used.

Please review Appendix E in the WTG Guide (pages 419-20) and the explanations and examples in the Handbook (pages 331-336). You will notice that the WTG Guide description is easier to read but lacks much of the detail of the Handbook material. Especially in the latter descriptions, the Handbook provides very detailed and specific guidelines for use in rating occupations as regards the working condition factors.

As with other Qualifications Profile factors, considerable judgement is involved in applying the working condition factors to jobs. An occupation which requires a worker to use an ordinary refrigerator many times a day is not considered to be exposing the worker to working conditions factor of cold, although the worker may handle cold items, he/she works at room temperature. On the other hand, a meat cutter may have to spend hours in a walk-in refrigerator and is, thus, subject to extremes of cold.

You should also have noted that some of the factors require technical knowledge. The noise and vibration factor, for example, is used only when noise is persistent enough to "cause marked distraction or hearing loss ... if endured day after day." Although rehabilitation workers are rarely trained in audiometrics, it is possible to estimate by comparison with items in the table on page 335. If you are concerned about the possible effects of noise on a potential person/position match, more technical advice should be sought.

Please turn to page 189 in the Appendix of this manual and complete the self-rating exercise.

We can obtain general information about the working conditions of occupations from the WTG Guide which lists the most prevalent factors for each WTG. We can also use the definitions in the DOT for additional detail.

UNIT XVII, EXERCISE I

Look at the definitions for AIRPLANE INSPECTOR and WATER-QUALITY TESTER once again. Answer the following questions about the working conditions involved in these occupations.

1. What key word(s) or phrase(s) would lead you to assume that the AIRPLANE INSPECTOR might have to adapt to outside as well as inside work? _____

   _____

2. Is the AIRPLANE INSPECTOR and/or WATER-QUALITY TESTER more likely to be exposed to noise and vibrations. _____

3. Which occupation is most likely to involve hazards?

   _____

4. Under each title, list the most likely atmospheric conditions (#7) to which each worker would be subjected.

AIRPLANE INSPECTOR	WATER-QUALITY TESTER
_____	_____
_____	_____
_____	_____

Go ahead and enter the most likely Working Conditions for each of the occupations you listed in columns 4-7 of the VAS. Use all of the materials previously discussed to make your judgements.

When you have finished, compare the ratings in columns 1 and 2 with those in 4-7. Circle any of the working conditions if they are more demanding than your self-ratings.

Before we leave the subject of working conditions, it is good to remember that the process of comparing the conditions of occupations with the characteristics of clients can be made easier by any of the following activities:

- discussing with the clients the sub-factors to make sure that they understand them.
- discussing with the clients their reasons for the self-ratings, especially the extent to which physical factors - versus willingness - played a role.
- reviewing medical data on the client to determine its vocational relevance.
- obtaining a description of the physical demands and working conditions required for a particular occupation for which a client is being considered. This description can be revieved by a medical consultant or treating physician to determine whether the client could perform satisfactorily.

- having the client visit a job site in which he/she is interested and review the actual work characteristics.

By using these and other activities, the rehabilitation worker encourages client participation in the rehabilitation planning process while increasing the amount and quality of occupational information for all concerned.

UNIT XVIII ESTIMATING DATA, PEOPLE AND THINGS

Unit Objectives: 1. To explain the concept of DPT as a tool in assessing the work characteristics of people.

INTRODUCTION: The basic concepts of DPT were presented in Unit VI and need not be repeated here. You may wish to read Appendix C in the WTG Guide (pages 412-15) as a refresher. You will note that

- the language used to explain the concept and the various levels is considerably easier for clients to understand.
- a table has been added to group the DPT levels into low, average and high categories.

UNIT XVIII, EXERCISE I

To check your facility with DPT concepts, please complete the following exercises:

1. The higher the number. the _____ complex the task.
2. Each DPT level is identified by use of an _____ as well as a number.
3. In the DOT, occupations are arranged within the OGA by DPT code, with the most/least complex (circle one) occupations listed first.
4. As the complexity levels of People and/or Things increase, the complexity level of Data increases/decreases. (Circle one)
5. Which occupation has the highest worker function level - AIRPLANE INSPECTOR or WATER-QUALITY TESTER? _____

The worker function level required for an occupation may be determined simply by looking at the middle three digits of the occupational code. The WTG Guide provides general information as to DPT levels for the WTG's but since this is more general, you will probably not use it too frequently.

Go ahead and record the DPT levels for each of the occupations in columns 4-7 of the VAS. The entries should be made at the bottom of page 3.

We also want to be able to apply the concepts of DPT to people. Although it is often difficult to "summarize" all of a person's characteristics into a three digit code, we think you will find it helpful as a way of describing both present capabilities and potentials. By using the examples of each DPT level provided on pages 73-83 of the Handbook, you will probably be able to decide the approximate level of your own ability and potential in each of the three areas.

Please turn to page 190 in the Appendix and complete the self-rating exercise. When you have completed that activity, compare your ratings with those for the occupations in columns 4-7. If your ratings in column 1 are lower than those in columns 4-7, put a circle around the occupation(s). If the ratings in column 2 are also lower than any circled rating, put an X in the circle indicating that you doubt your potential to increase your worker function level

to that required for the occupation. If you have just a circle in one of the columns, you are suggesting that although you don't feel that you presently have the ability to function at that level, you could do so after a period of preparation.

Before we leave worker function levels once again, there are two other characteristics of DPT about which you should know. First, the THINGS hierarchy can be further refined to identify relationships to machinery. Five of the levels specifically involve the worker with machinery:

0 - Setting-up

2 - Operating-Controlling

3 - Driving-Operating

5 - Tending

6 - Feeding-Offbearing

The other three levels (1 - Precision Working, 4 - Manipulating, and 7 - Handling) may involve machinery occasionally, but the emphasis is on use of the arms and hands. It is helpful to note that there are both machine and non-machine activities at higher and lower THINGS levels. Some people have preferences and skills which lead toward machinery while others do not. By helping clients to identify their preferences and abilities in this area, we can increase the likelihood of a satisfactory and satisfying person/position match.

Secondly, DPT can be used to identify the occupations within a WTG which are most likely to be suitable for a client.

UNIT XVIII, EXERCISE II

If, for example, a client who had selected WTG 06.01 as his primary interest area did not want to be a supervisor, but had a DPT level no higher than .384, you could quickly identify which occupations should be explored first.

Look up the appropriate WTG in the WTG Guide and list the possible occupations in the above example. (Note: If you really wanted all the possible occupations, you would use the DOL Guide since the WTG Guide lists only the most prevalent occupations in a WTG.)

_____

_____

_____

By using your knowledge of industrial designation and OGA, you could quickly solve even more complicated problems. For example:

UNIT XVIII, EXERCISE III

Mary doesn't know what she wants to do. She is unable to decide between the various WTG's although she did select Business Detail as her #1 interest area. You and she have agreed that her GED level at placement will be 3 and her DPT level .362. What three occupations would you suggest for more detailed study? (Again, use the WTG Guide even though the DOL Guide would yield more options.)

Occupational Title	Occupational Code	WTG
_____	_____	_____
_____	_____	_____
_____	_____	_____

You later discover that a local company is looking for employees to record and process alphanumeric data using electromechanical equipment. In which OGA group would such a position most likely be found? _____

You have now completed a review of the eight components in the Qualifications Profile and should be able to see a range of rehabilitation-related uses by combining several of the QP factors to either narrow or broaden a person's occupational focus. Here are two points to remember:

1. The work and qualifications profiles do not contain all the important comparisons between a person and a position. Don't forget work behavior, job satisfaction, and other aspects which may be relevant in specific instances.

2. You may not need to make a person/job match comparison in each factor area with some clients. By thinking about the titles of each factor (e.g., GED, SVP, Aptitudes) you will frequently be able to identify factors of special concern and focus additional diagnostic and exploration activities in these areas. For example, if a client's disability is other than physical, you might mutually decide to devote more effort to GED or Aptitude areas than Physical Demands and Working Conditions. The effective use of DOT materials is as much a matter of selectivity as knowledge!

UNIT XIX COMPLETING THE VOCATIONAL APPRAISAL SUMMARY

Unit Objective: 1. To demonstrate the completion of the VAS as an aid in vocational planning and decision making.

INTRODUCTION: In the previous eight units, you have been using the VAS to record information about yourself and about some occupations in which you are interested. Now, we are ready to evaluate the overall results of this effort in much the same way as is done with clients engaged in a rehabilitation planning process.

In actual case practice, the VAS would have been completed somewhat differently:

- VAS form VR would have been used (see page 140).
- The client would probably have been asked to complete columns 1 and 2 for the entire VAS before being shown the contents of columns 6-9. Because of the judgements required, the rehabilitation worker would have completed these columns.
- The rehabilitation worker would also have completed columns 3-5 of Form VR of the VAS.
- Depending on the specific situation and need, the client might have been asked to "justify" his/her self-ratings, using the rating code.
- Differences between the self-ratings and rehabilitation worker's ratings of the client would have been resolved through discussion or further assessment. Obviously, agreement on a rehabilitation plan and goal is unlikely unless there is first an agreement on the present situation.

Look at each of the occupations in which you expressed an interest.

- First, reread the occupational definitions in light of the circles and X's you have made to indicate likely conflicts. Do the requirements listed still seem appropriate to the occupation? Now that you know more about the occupation, does it still interest you?
- If you discover that an occupation in columns 4-7 has no circles or X's, that suggests that you could meet the worker requirements as you presently understand them.
- If your ratings in column 1 are <u>above</u> those for an occupation, you may wish to consider whether the occupation would be sufficiently interesting, challenging, and/or satisfying.
- After you have reviewed each occupation, we ask that you select the <u>one</u> from columns 5-7 in which you are still the most interested. Assume that you have decided to pursue this occupation beginning tomorrow.
- Turn to page 5 of the VAS.
- Review the worker requirements for the occupation you have selected and
  - Enter the DOT abbreviation under "Area" in Part III of the VAS for every circle or X that indicates conflict between your self-rating and the worker requirement for the occupation. For example, if a circle appears around the math requirement for the occupation in which you are most interested, you would enter GED-M under the

word "area" on the VAS. This indicates that you recognize a deficit in this area. Repeat this process for each circle or X in the column you selected as your primary interest.

- For each deficit under "Area," think of an activity that would help you meet the likely requirements of the occupation. Describe it under "Activity." Next to GED-M, for instance, you might write "night school in bookkeeping." Be as specific as possible.
- Indicate under "completion date" when you would be able to say that you have met the worker requirement reflected in your "plan."

- Now go back and look at your self QP once again.
  - Will your entries under "Activity" require longer than the time you listed for SVP?
  - Do any of the "Activities" require more potential than you indicated in column 2? Different types of work activities or work situations?
  - If your answers to any of the above are yes, you may wish to rethink your "plan" or your self-ratings.
- There may still be some aspects of the occupation for which you haven't developed an activity by which to bring your worker characteristics into line. If such "conflicts" still exist, you are saying in effect that you can't change sufficiently and therefore, the occupational requirements must.
  - Enter any such unresolved conflicts in Part IV of the VAS. Describe each one under the word "Area."

  For each area, try and think of ways in which the occupational requirements might be modified through use of adaptive equipment, job restructuring, etc. Enter these possibilities on the VAS.
- For any "conflicts" that remain, try to think of actual employment settings where the worker requirement might not be found.

In the preceding process, you first considered how you might adapt/develop your characteristics to those job requirements which you can't presently meet. The more you were able to do this, the better the chances for a successful person/position match. In areas where this wasn't possible, you sought ways of modifying the job. Although a change in job requirements may not have been a viable option for you, it is an increasingly likely prospect for disabled persons because of the "reasonable accommodation" features of affirmative action requirements. We think you'll agree, however, that the more it is necessary to modify the job, the fewer possible settings will be located.

In the last part of the activity, the focus was on finding a position where the typical job requirements are not present. This "specialized placement" result is obviously difficult and when it is necessary, the chances of a successful outcome are reduced. If, however, we know the specific areas in which a person cannot meet the demands of a job, we are more likely to be able to negotiate successfully.

Hopefully, you found at least one new occupation for which you could "plan" activities to meet all of the likely occupational requirements. For some

clients, however, you may jointly conclude that their first choices have too many circles and X's for which no remedial services can be developed. (Remember, it is not the number of conflicts that makes an occupation unrealistic, but the inability to "resolve" them.) When the occupations originally selected for study have to be abandoned, the process can be repeated rather quickly with others. The identification of a qualifications profile for most occupations should require only a few minutes to complete. If, however, no other specific occupations have been identified, the client's QP can be compared with the general program files for the WTG's. This process is fully explained on page 154 in the Appendix.

A final note: The SR Form of the VAS which you have been using was developed expressly for this manual and probably has its principal utility as a training tool. A slightly different version, Form VR, allows for a full summary of (a) client self-ratings, (b) staff ratings of a client's worker characteristics and (c) WTG data Summary for up to four occupations. Two copies of Form VR are included on pages 140 through 150. Also, a one page VAS Form (Form VAS-S) is found on page 152; it can be used in a variety of ways, takes up little space, but requires knowledgeable and careful interpretation.

UNIT XX

CASE PRACTICE

Unit Objectives: 1. To provide examples of how DOT materials can be used to assist in rehabilitation casework.

2. To demonstrate the application of previously learned skills in all aspects of the DOT and related materials.

INTRODUCTION: In this unit, you are going to continue working with the two clients (Ronald and Alice) whom you met in Unit VIII. You will be asked to review the case history material already presented as well as the results of your earlier efforts on their behalf. Then you will be provided with additional case material and asked to develop some rehabilitation plans for them.

Remember that you now have a great deal of occupationally significant information available to you. The idea is to use it to raise questions which will help you with further assessment and planning decisions.

Ron Palumbo:

1. Please reread the original case data provided in Unit VIII, pages 45-46. You should also read your responses to the exercises on page 46.

2. Use a VAS-VR Form from the Appendix to record information on Ron. First, enter his name and in column 6, the title of his last occupation and the most likely worker requirements for that occupation in each of the eight QP areas. Use a pencil so that you can make changes later.

3. Read the case material presented to his rehabilitation counselor on 8/3/78 when Ron applied for VR services (pages 97-104).

MEDICAL REPORT

Patient: Ronald Palumbo
St. Michael's Hospital
Lawton, RI

Admitted 1/5/78
Discharged 2/24/78

DISCHARGE SUMMARY:

CHIEF COMPLAINT: Right-sided weakness and aphasia.

PRESENT ILLNESS: This was a 38-year old, white male who related initially through sign language. Approximately five months ago he had an episode of right neck and head pain with associated diplopia. The symptoms persisted for approximately two hours and then subsided. He apparently had been otherwise asymptomatic. He was married and had been working gainfully. On the day of admission at approximately 1:00 p.m. while at home he complained of dizziness and right leg weakness. He did not appreciate a period of unconsciousness but vomiting occurred and the patient was brought to the Emergency Room of St. Michael's Hospital arriving at 1:50 p.m. on 1/5/78. His level of consciousness at the time of arrival was described as non-responsive with decerebrate-like movements. Right hemiparesis was appreciated as the patient's level of alertness improved and as late as 2:25 p.m. the patient was talking clearly and moving all extremities, but at 2:45 p.m. the findings of right hemiparesis and aphasia recurred. Patient remained in this state to the time of the initial physical examination.

POSITIVE PHYSICAL FINDINGS: The patient's blood pressure on admission was reported as 120/88, respirations 24, regular pulse of 88 and temperature 100. The patient was a well-developed, well-nourished white male lying in bed. Nasogastric tube was in place. Pertinent findings revolved about the neurological system and were as follows: Patient was alert and responding minimally at the verbal level but had no receptive aphasia. He followed commands directly with left-sided extremities briskly but somewhat incoordinate. The right-sided extremities demonstrated dense hemiplegia as regards the upper extremity but there was some spasticity of the right lower extremity. The deep tendon reflexes were symmetrical. There was no evidence for clonus or Babinski at this time. The patient had a right-sided hypalgesia, including the face, trunk, and extremities. Cranial nerves revealed a left sixth nerve palsy. The pupils were equal at 2 millimeters in diameter and reacted slightly to light. There was no evidence of papilledema in the fundi, no hemorrhages or exudates. The left fundus was somewhat more difficult to see than the right because of the medial deviation of the eye. Patient noted diplopia on visual examination but could count fingers well bilaterally. Visual fields to gross confrontation could not be properly executed. Patient had a right central facial weakness which was marked and the patient's tongue deviated to the right. The gag reflex was slightly depressed.

LABORATORY DATA: Blood studies on admission were unremarkable. The cerebrospinal fluid protein was 21 mg. Copious additional laboratory data occur on the patient's chart as does the spectrum of x-rays. The significant findings in the aggregate of the patient's right brachial angiogram and left brachial angiogram were in the final analysis unremarkable.

COURSE IN HOSPITAL: Following admission, the patient's lumbar puncture was performed and revealed an opening pressure of 140 millimeters of water with

clear fluid to the laboratory which was unremarkable. The patient was seen in medical consultation by Dr. Whittier. He was treated initially conservatively with Decadron and bed rest and close neurological observation. He improved progressively to the point where angiography was undertaken and first a left carotid angiogram followed by a right brachial and then a left brachial angiogram in sequential fashion which proved to be unrevealing in the final analysis as regards the etiology of the patient's right-sided hemiparesis. In due course, his urinalysis grew out E. coli. He was treated appropriately in consultation by Dr. Drew. A CAT scan failed to reveal any significant abnormality. Brain scan was similarly unrewarding. The patient was seen in neurological consultation by Dr. Washington and subsequently in rehabilitation consultation by Dr. Allen. The patient was transferred to the Neurological Service under Dr. Washington's care; with progressive improvement of the patient's right hemiparesis to a semifunctional level. The patient was discharged to be followed on an outpatient basis by Dr. Washington and Dr. Allen with approriate on-going physiotherapy.

CONDITION ON DISCHARGE: Alive and improved.

DISCHARGE DIAGNOSIS: Right hemiparesis secondary to left cerebral ischemic event.

Dictation Date: 5/16/78
Transcribed: 5/22/78

Joyce A. Bergeron

Joyce A. Bergeron, M.D.

April 11, 1978

PHYSIATRIC CONSULTATION--Ronald Palumbo
James W. Allen, M.D.

cc: Dr. Washington
Physical Therapy--Mrs. Lummis
Dr. Fanning
Rehabilitation Counselor--David Gray

Patient walks unlimited distances with short leg brace and a Lofstrand crutch. He has movement of the right shoulder and elbow and a slight finger motion. Motions of the hip and knee are strong with weakness of ankle dorsi flexion. Position sense and pin prick are intact.

Speech articulation is still difficult to understand at times. Ataxia is not present on the left except that rapidly alternating movements at the hand are slow but good at the ankle.

Patient is to continue physical therapy 2X/week. He was told that relatively rapid improvement can be expected for another 3 months and more slowly for about 6 months thereafter.

Patient was encouraged to recontact Dr. Fanning for speech sessions once a week and to contact David Gray for vocational counseling.

Return in 2 months.

James W. Allen

James W. Allen, M.D.
Director, Physical Medicine and Rehabilitation

To:
Joyce A. Bergeron
Personal Physician

Re:
Ron Palumbo
29 June 78

Evaluation: Speech/Language

Brief History:
Ronald is a 38 year old man who sustained a CVA on 5 January 1978. He was discharged from the Extended Care Unit on 25 March. He served as his own historian for the present information.

Social/psychological:
At the time of his stroke Ron had been married about seventeen years. The stresses resulting from his illness have been monumental personally and financially to Ron and his family. His wife, Elaine, has taken a job to ease the financial problems and help pay bills. Ronald is a determined but sometimes stubborn person. This proved to be an asset during his recuperation period since he never gave up trying to get better. However, he has lost a great deal of self-confidence and expressed depression over his present situation. His present goals are to improve his speech and to go back to work.

Language skills:
He feels he has improved somewhat since his discharge but finds people very poor listeners. He often gets upset because he has to repeat over and over.

Testing observations:
Informal and formal testing revealed him to function adequately in comprehension skills.

Verbal expression was functional in respect to work choice, grammatical skills and sentence length. Articulation skills were moderately involved and generally characteristic of an ataxic dysarthria. The most deviant speech patterns noted were monoloudness and monopitch. Stress patterns tended to be absent because of the pitch and loudness problems. Consonants tended to be imprecise with vowels relatively unaffected. Voice quality was acceptable. Rate tended to be reduced and programmed.

Reading skills were functional. He was administered selected sub-tests of the Durrell Analysis of Reading Difficulty and performed adequately at the 8th grade ceiling level. He stated he hasn't yet been interested in reading anything other than a book on UFO's which he received from a friend.

Writing was performed with his left hand and was described as adequate for his present needs. However, he is not satisfied with his penmanship.

Hearing was screened at 20 decibels and found to be adequate throughout the frequency range. He said that one month ago his hearing was "down but all of a sudden one day I could hear things again--things I never knew were there before." This writer had followed Ron during his hospital stay and hadn't noted a hearing loss.

Summary:
Ron is now 5½ months post CVA. He has experienced unhappiness because of being unemployed, but feels he has learned to be more appreciative of life in general, and is changing for the better.

Comprehension skills are functional; verbal expression is moderately dysarthric characterized by monopitch and loudness. Stress is moderately involved with fluency programmed and choppy. Consonants are more affected than vowels. Reading and writing are functional at a basic level. Hearing is normal.

Recommendations:

Overall I feel Ron has a greater potential in speech clarity. He has little insight of his limitations, i.e., what components of his speech make him unintelligible to many people. I feel he is a candidate for speech therapy with goals directed in the areas of auditory discrimination, education and recognition of the fact that society will not change for Ron Palumbo.

Wilma R. Nutley

Wilma R. Nutley Sc.D.
Speech Pathologist

cc: Dr. Allen
Dr. Washington
Dr. Bergeron
David Gray
Rehabilitation Counselor

Nuts and Bolts Counseling Associates

Psychological Review
Ronald Palumbo
July 25, 1978

Ronald is a thirty-eight year old married man who recently suffered a cardio-vascular accident which has left him physically disabled. Neurological damage seems to be centered in the left hemisphere of the brain as physical impairment is contained to the right side and to disturbances in speech. Ron has an excellent work history, working his way up from machinist jobs to supervisory positions. Presently he is much depressed by his unfortunate disability and wants to return to work. His physical problems and unemployment create feelings of inadequacy and low self-esteem. His self-image is further depressed by the fact that his wife has had to go to work to support the family.

Intellectually the stroke has detrimentally affected Ronald's functioning within the verbal realm. The results of the Wechsler Adult Intelligence Scale indicate that his overall level of intellectual functioning falls within the low average range, with a full scale IQ of 80. However, the overall IQ is depressed by the lowered verbal IQ of 71. Ronald's verbal skills are presently within the borderline defective range in comparison to other adults his age. His information processing of verbal material and verbal expression have been greatly depressed due to the CVA. His general fund of information and long-term memory are below average, as well as his social judgement. Language development and arithmetic reasoning are borderline; whereas abstract reasoning and auditory short-term memory are defective.

Within the performance realm all abilities measured are average (P IQ-98), indicating normal intellectual functioning of visual-motor skills. Short-term memory for visual symbols and ability to learn new material is at an average level of development. Thus it seems that short-term memory difficulties are limited to verbal symbols.

With extensive speech therapy it seems that Ron will be able to increase his ability to communicate. Test results indicate that he is capable of learning new material if he so desires.

Abel Tomar
Abel Tomar

APPLICATION FOR VR SERVICES

8/3/78

NAME: Ronald Palumbo

ADDRESS: 31 Appian Road
Thomaston, R.I.

DOB: 3/22/40 AGE: 38

SEX: M VETERAN STATUS: Hon. discharge MARITAL STATUS: M

S.S. NO.: 097-333-1212

SPOUSE: Elaine AGE: 37 OCCUPATION: Receptionist

CHILDREN:	Name	Age	Health
	Paul	16	Good
	Joseph	15	"
	Ann	6	"

PHYSICAL PROBLEM: My right ankle & hand are weak. I have trouble speaking clearly but most people can understand me now. I had a CVA in January.

HOW DOES THIS LIMIT YOUR ABILITY TO WORK? Can't move around as fast as before. Can't stand up all day. Can't move my fingers fast in my right hand.

WHAT DOCTORS HAVE BEEN TO FOR THESE PROBLEMS? St. Michael's Hospital team

WHAT IS YOUR PRESENT INCOME? SSDI 376/mo.
Wife's salary 450/mo.

EDUCATION: See previous sheets

ARE YOU INTERESTED IN FURTHER EDUCATION OR TRAINING? Don't know - it depends on what. Think I've had enough though.

EMPLOYMENT:

See previous sheets.

WHAT KIND OF WORK WOULD YOU LIKE TO DO? I'd like my old job back I was good at it and my boss said I could come back as the guy doing it now wants out by Nov. My boss also said I could try for the tool-crib supervisor job if I felt better about doing that. Then this guy I know said they have an opening

David Gray
Rehabilitation Counselor

for a materials handling coordinator at his place. They want someone who knows the metal business. Then my wife wants me to be a computer operator because that's big around here. To tell the truth I don't know what I can do any more.

4. Ron has expressed interest in three occupations besides the one already entered in column 6 of the VAS. For each of these occupations, find the proper base title, industrial designation and Worker Trait Group. Enter this information in column 7-9 of the VAS. Then, using your skills with the DOT and the WTG materials, determine the most likely QP for each occupation.

Here are some selected case notes from the client's record.

8/5/78 Ron states that he is "sick of being sick" and that he misses being with lots of people every day. He is upset by his family whom he feels is "spoiling me when I can do for myself." He also says that the worst part of the day is when everyone is away at school and work while he is home alone.

Client says he has organized his life because he likes "a good routine where I know what I'm going to do." He works on the house in the morning (painting, replacing floor boards, etc.), takes a long walk around noon, and then helps his sons with their old VW after school. "I mostly tell them what to do so they'll learn." He states that he no longer uses the crutch but carries a cane when outdoors "just in case."

He related being able to assemble a new bike for his daughter. He had no difficulty with the instructions or diagrams but found use of small tools (e.g., screwdriver) the most difficult. "I was sort of slow, but it came out fine." His speech was more easily understandable when describing this activity than when discussing what he wants to do. Client was given self-assessment materials to take home.

8/12/78 Called Mr. Towne regarding re-employment possibilities. He would consider rehiring Ron in his old job, but it requires that he train new workers and be involved in some of the negotiations for new contracts. Actual machine operation and setup isn't required although, according to Mr. Towne, "it helps to be able to demonstrate." The tool-crib supervisor's job was also mentioned. The tools and jigs weigh 20 pounds or less; there are three workers to be supervised (one per shift); and the record keeping involves inventory and recommendations for new purchases.

Ron was back with the self-assessment materials. He was confident about most of his current ratings (WA 1, 4, 9, 10; WS 3, 8, 10; GED - R & L 4; Apts G, S, + P = 3, V-4; PD L, 4, 5, 6; WC 1, 5.) but unsure of a few. He is uncomfortable with "anything to do with figures." "And I used to be really good with them." He also had difficulty with the words "routine, definite, organized" and said that he likes to have things organized and well setup, but wouldn't want to do the same task over and over. Also, he said he liked people but "they don't always take the time to listen to me."

8/15/78 Called Dr. Bergeron for a medical update, especially concerning physical capacity. Hasn't seen Ron lately but has appointment scheduled next week. She wants us to tell her what jobs are being considered so that she can decide if he can handle them. Her only other comment was that he "shouldn't do anything too heavy."

5. Using the information now available to you about Ron, complete as much of columns 3, 4, and 5 as possible. You don't have enough information to complete a Q.P. on Ron, but you will find that you can extract quite a bit of vocationally relevant data from what is available.

6. Now review and compare columns 3-5 with columns 6-9. Are there portions of the client columns which are blank or in which you put question marks where more information is needed before helping Ron make sound vocational decisions? If so, circle those areas in columns 3 or 4.

UNIT XX, EXERCISE I

Based on those circles, develop a series of questions to the treating physician, to a vocational evaluator, and to Ron to obtain the information you believe is needed.

- Remember to ask only vocationally relevant questions.
- In wording your questions, remember that the more specific the questions, the more helpful the answers.
- Don't worry about phraseology and writing style - in this exercise, content counts!

A. To Dr. Bergeron.

B. To Coordinator, Valley Comprehensive Vocational Assessment Center.

C. To Ron.

_____

_____

_____

_____

_____

_____

When you have completed this exercise, you should check your responses on pages 170 through 174 in the Appendix.

Alice Pinkerton

Reread the case record data (pages 47-48), the exercises (pages 49-50), and the additional material (pages 108-113) regarding Alice.

Enter the most likely worker requirements for the four occupations being considered for her. Use columns 6-9 of a VAS-VR form from pages 146-150.

Develop as complete a Q.P. as can be determined from available data. Enter it in column 3.

MAZE UNION HIGH SCHOOL
1 ROYALIST DRIVE
LOYALTON, N.H.

FINAL REPORT: Alice Pinkerton

Since Alice is nearly 21, she will be leaving school having made excellent progress here. A summary of annual testing with the Peabody Individual Achievement Test (PIAT) is provided.

DATE:	4/13/72	4/73	5/74	5/75	5/76
Sub-test	Grade Equivalent	G.E.	G.E.	G.E.	G.E.
Math	1.8	2.1	3.1	3.9	2.6
Reading Rec.	5.4	6.4	8.4	8.1	7.9
Reading Comp.	4.7	4.5	4.2	5.0	5.8
Spelling	5.8	5.6	5.8	6.0	6.7
Gen'l Info.	4.7	6.3	7.2	8.8	7.2
C. Age	15-6	16-7	17-8	18-8	19-8
Total Test	4.3	4.8	5.3	6.0	5.6

We also arranged for Alice to be seen again for intellectual assessment with the following results:

DATE SEEN: 6/6/76 DOB: 9/14/56

WAIS Results

Information	5	Digit Symbol	5
Comprehensive	4	Picture Completion	7
Arithmetic	3	Block Design	4
Similarities	7	Picture Arrangement	4
Digit Span	6	Object Assembly	1
Vocabulary	6	Performance Score	21
Verbal Score	31		

Verbal Score	72
Performance Score	61
Full Scale	65

Our special education staff has supplied this summary of Alice's present situation:

Adjustment of Child to Living Situation: Excellent. Handles all self-care skills ably. Is compatible with authority and peers. Not given to spontaneous initiative in routine chores, but is willing and able when asked. Requires little supervision.

Psy Report: Not a complicated individual. Her developmental timetable is slow, but not slower than expected for one with her handicap.

Treatment: Alice is constantly being given added responsibility, consequently she feels responsible for realistic workloads. Socially stable, not requiring treatment.

Review of goals with child: Does not project long-range goals - she is short-term goal oriented. May be unable to worry about vocational future. Down's people are notoriously limited in this regard.

School is currently planning with family for termination of enrollment in June, 1976 and for transfer to vocational program thereafter.

Henry P. Appleton

Henry P. Appleton, Coordinator
Special Services Section

WORK ASSESSMENT REPORT: ALICE PINKERTON
COMPLETION DATE: 11/21/78

During the past six weeks, this client has been programmed into the work evaluation room three hours weekly to obtain more baseline data on her capabilities. In addition, her work in the workshop has been monitored more closely and she has been interviewed on two occasions.

Alice insists that she wants to leave the workshop. She ways she wants to "earn more money" and "work on a machine." She puts most of her earnings in a bank account but saves a portion for new clothes and bracelets. She can count and make change in simple transactions.

On the Wide Range Achievement Test (WRAT), she scored at the 5.6 grade level on Reading, 6.1 in Spelling and 2.1 in Math. On the Minnesota Paper Form Board she achieved a percentile rank of only 15 as compared with the easiest norms available. Her scores on three manual dexterity tests (Bennett Hand Tool, Purdue Pegboard and Crawford Small Parts) are wide ranging. She did poorest (no score above 25 percentile) on the Crawford, slightly better on the Purdue (scores ranging from the 33-57 percentile) and fairly well on the Bennett Hand Tool Test (45 percentile against general norms).

In the workshop, her production averages 50-65% of that expected of workers considered "ready for placement." Depending on the task, however, this varies from 21% to 222%. She is much more highly motivated when there is a machine involved (any machine!) and does better when her routine is not disturbed. She only complains of fatigue when on a job she dislikes. Her quality also varies according to the job. She has fair to good work habits and does not bother other workers. She has no tolerance for sudden noises or distractions but is not bothered by constant, repetitive noise. She is overly dependent on supervisors, but will work very hard in return for praise. Peer relationships are fair.

Alice appears to learn best from demonstration and does not learn quickly or from verbal directions. She generally tries several work patterns or methods, rarely settling on one.

Emil Stanley
Vocational Evaluator

PHYSICIANS STATEMENT

Except as noted, no medical condition exists which would preclude the above named individual from participation in work, real or simulated, as part of a rehabilitation or training program.

Muscle tone is not sufficient to allow for heavy lifting, pushing or pulling. Individual may initially experience inability to stand or maneuver longer than two hours without sitting.

A specialist examination of the cardiovascular system is recommended prior to any task other than sedentary.

Sincerely,

J. L. Doherty

J. L. Doherty, M.D.
Consulting Physician
October 1, 1977

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To: Emil Stanley September 9, 1978

From: J. L. Doherty, M.D.

As requested, I have reexamined Alice Pinkerton and can offer the following information in the areas mentioned in your phone call on August 13.

Although Alice remains somewhat obese, her muscle tone is much improved since I first saw her. I would still advise against jobs involving heavy lifting, but would think that she could perform jobs which do not exceed 40 pounds or so. There are no medical contraindications to standing. I would suggest that this be left up to her, assuming, of course, that she is given the standard rest periods found in most work places.

She was seen by Dr. Blood, the Cardiovascular specialist, on Jan. 3, 1978. He found no gross abnormalities and approved the diet and exercise regime she was on. I will forward a copy of Dr. Blood's report for your records.

J. L. Dougherty

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Staff Notes

1. Spoke with Mr. Grundy at XYZ Shoe. The job of Heel Sorter is a high turnover position apparently because of the speed requirement coupled with the fine discrimination required to see small cracks or defects in the heels. Since it is an entry level job, they have difficulty getting workers who can make the judgements quickly. Mr. Grundy was reluctant to consider a longer OJT program. (Sept. 15, 1978)

2. Talked with Fanny at the restaurant. She showed me the kitchen area which is pretty hectic and crowded. The dishwashing machine is new and semiautomatic. It still requires feeding and filling the soap and rinse cups and routine cleaning of the brushes and drains. It isn't noisy, but the area is. Fanny also showed me the salad making operation which is a simple one, well within Alice's ability. (Sept. 17, 1978)

3. Visited the Aspen Furniture Co. today to view the furniture assembler position. In addition to the usual worker requirements, flexibility would be required because of the variety of pieces to be assembled. Much of their business comes from mail orders and thus a worker might assemble 25 - 30 different pieces in a day. For each, there is a set of specifications which include size of components, assembly sequence, etc. The worker must be able to work from the specifications with little or no supervisory assistance. I was very favorably impressed with the workers and supervisors. They would be willing to consider a longer than usual OJT. (Oct. 1, 1978)

4. Howard Johnson, Manager of the Holiday Inn, called about the building maintenance worker. He wants a person who can do all the setup for sales meetings as well as cleaning. This would require reading the sales orders and setting up correct tables, AV equipment, etc. Besides cleaning the meeting rooms, the worker must keep the entry way open. Lawns and sidewalks are cared for by other workers. (Oct. 1, 1978)

UNIT XX, EXERCISE II

A. In which areas would you want additional information before deciding on a placement?

B. If you had to select one of the four placements with the data now available, which one would be most appropriate?

Turn to pages 175-178 in the Appendix to check your responses.

Postscript

This manual has presented a process by which occupational information can be used to organize and synthesize case data by comparing client characteristics with the requirements made on workers in a wide range of occupations. To help you learn the process, you were asked to follow a fairly rigid format, complete a lot of exercises and appraise your own vocational characteristics.

Despite this structured approach, we have tried to show how each professional can--and must--adapt the process to their unique circumstances of clients, job markets, and resources. Whether you use any of the forms contained herein or adapt them to your own situation is less important than that you understand how to use occupational information to organize case material and your evaluative/counseling efforts to improve the person/job match.

The Dictionary of Occupational Titles and related materials provide an invaluable resource in vocational decision-making. It is, however, only one approach to a professional activity which requires--and has--several. Professionals need to be conversant with all the major approaches since no one has been shown to be universally applicable. Said another way, "when the only tool we have is a hammer, we treat all problems as if they are nails."

With two exceptions, the forms used in this manual have limited usefulness outside the realm of training as they are too long for everyday usage. The short form of the VAS (page 152) provides a quick summary of problems in a particular person/job match; the Q.P. approach to vocational exploration (pages 154-158) has been found to be a good tool for use with clients who can't seem to "get started" in the exploration process. And by the way, both of these forms were adapted by rehabilitation practitioners from earlier versions. As you find innovative ways to apply the materials in this manual, please share them.

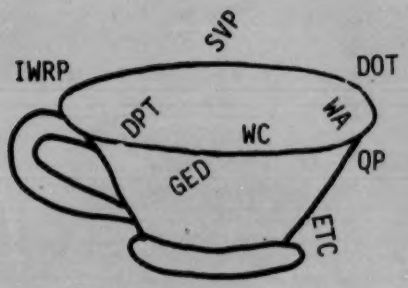
The checklists in Appendix C (pages 180-190) have appeared in various forms since 1965. These versions were designed for training, not client purposes. You should review the commercial versions before developing your own. This is, however, a very promising technique to encourage client participation in career planning.

It is neither possible nor professionally sound to apply the material presented herein in a mechanical or numerical way. Without the essential ingredients of professional judgement, active client participation, and current, locally relevant, occupational information, this approach can be dangerously invalid. As presented in this manual, however, the approach offers a needed supplement to more traditional vocational assessment strategies. It has been utilized with a large number of disabled clients in a variety of settings. When combined with good, client centered assessment activities, the approach has been found to be accurate, functional, and efficient. Each rehabilitation worker must ultimately decide how to fit the approach and materials into their case practice and work setting. Appendix D (191-193) contains two models which may prove helpful. The first model relates to a public vocational rehabilitation agency while the second relates to a vocational assessment facility.

Charles W. Robinson
September, 1979

DEFINITIONS:

A CUP OF ALPHABET SOUP



1. I.W.R.P.: Individualized Written Rehabilitation Program. A detailed description of the goals and services to be provided during the vocational rehabilitation process.

2. ELEMENT: The smallest step into which a work activity can be subdivided practicably without analyzing descrete motions and mental processes. EXAMPLES: Picking up a nut and bolt; threading the nut onto the bolt; using hand tools to tighten.

3. TASK: One or more elements which constitute a distinct activity conducted to accomplish a specific purpose. EXAMPLES: Mounting and tightening a bicycle chain guard; frame assembly.

4. POSITION: A collection of tasks which constitute the total work assignment of a single worker. There are as many positions as workers.

5. JOB: A group of positions with identical major tasks which are found in a single organization and which can be described in a single analysis. EXAMPLE: Bicycle assembler, Columbia Bicycle Co.

6. OCCUPATION: A group of similar jobs found in several establishments. EXAMPLE: Assembler, Bicycle (motor and bicycle) 806.684-014; Assembler, Bicycle (motor and bicycle) 806.687-010.

7. O.G.A.: Occupational Group Arrangement. A system for organizing occupations on the basis of products or services provided or the processes and materials used. Each occupation is coded into one of the nine Categories, one of the 82 Divisions and one of the 559 Groups. The first 3 digits of the occupational code indicates the Category, Division and Group to which an occupation has been assigned.

8. IND. DES.: Industrial Designation. A system for organizing occupations on the basis of the industry in which they are typically found. The industry to which an occupation is assigned is listed in parentheses following the base title for the occupation.

9. D.P.T.: Data, People, Things. A system for identifying the extent to which an occupation requires the worker to relate to data, people, and things. The level of data, people, and things involvement required for an occupation is indicated by the 4th, 5th, and 6th DOT digits. The term Worker Function Level is used to summarize the Data, People, and Things Level for a particular occupation or person.

10. W.T.G.: Worker Trait Group. A system for organizing occupations on the basis of common interests, and worker qualifications required for average successful performance. All occupations are coded into one of twelve interest areas, one of 66 worker requirement groups and one of 348 sub-groups--also known as Worker Requirement Groups and Work Groups.

11. JOB ANALYSIS: A systematic method of obtaining information about the work performed and required worker requirements of a position, job, or occupation by study and recording of the elements and/or tasks involved.

12. Q.P.: Qualifications Profile. A summation of the patterns of work activities, situations and conditions, general educational development, specific vocational preparation, aptitude, and physical demands found either in an occupation or an individual.

13. G.E.D.: General Educational Development. Those aspects of formal and informal education which contribute to the worker's (a) reasoning development and ability to follow instructions, and (b) acquisition of "tool" knowledges such as language and mathematical skills.

14. APT.: Aptitude. The quickness or ease with which a task is learned. The Department of Labor has identified eleven aptitudes which are work related.

15. S.V.P.: Specific Vocational Preparation. The amount of time required to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation.

16. P.D.: Physical Demands. The physical capacities required of workers in order for them to perform in job-worker situations.

17. W.C.: Working Conditions. Those physical surroundings of job-worker situations which make specific demands upon a worker's physical capacities.

18. W.S.: Work Situations. The adaptability requirements made on workers by specific types of job/worker situations. An occupation may be described by the types of worker adaptability required. Also, a person may select groups of occupations in which he/she is likely to be satisfied by identifying the work situations involved. Formerly referred to as TEMPERAMENT FACTORS.

19. W.A.: Work Activities. A system for classifying the tasks performed by workers according to 10 types of work activities. An occupation can be described by the major types of work activities involved. Also, a person may select groups of occupations in which he/she is likely to be interested by identifying the work activities involved. Formerly referred to as INTEREST FACTORS.

20. E.C.: Environmental Conditions. This term, which appears in some publications of the Department of Labor, is interchangeable with the term Working Conditions.

The Minnesota Theory of Work Adjustment was developed over a period of years into a very useful series of rehabilitation tools. Because the research associated with the Minnesota Theory is so large and so applicable to vocational rehabilitation, the reader is urged to refer directly to the source for a complete bibliography.

For purpose of this manual, however, it is important to note that 20 statements were developed to describe job satisfaction/occupational reinforcers. These statements were used in a questionnaire which assesses client job satisfaction needs (The Minnesota Importance Questionnaire) and to describe the likely satisfyers in over 100 different occupations. The 20 statements are as follows:

1. AU - Ability Utilization: I could do something that makes use of my abilities.
2. Ach - Achievement: The job could give me a feeling of accomplishment.
3. Act - Activity: I could be busy all the time.
4. Adv - Advancement: The job would provide an opportunity for advancement.
5. Au - Authority: I could tell people what to do.
6. CPP - Company Policies and Practices: The company would administer its policies fairly.
7. Com - Compensation: My pay would compare well with that of other workers.
8. Cow - Co-workers: My co-workers would be easy to make friends with.
9. Cre - Creativity: I could try out some of my own ideas.
10. Ind - Independence: I could work alone on the job.
11. MV - Moral Values: I could do the work without feeling that it is morally wrong.
12. Rec - Recognition: I could get recognition for the work I do.
13. Res - Responsibility: I could make decisions on my own.
14. Sec - Security: The job would provide for steady employment.
15. SSe - Social Service: I could do things for other people.
16. SSt - Social Status: I could be "somebody" in the community.
17. SHR - Supervision-Human Relations: My boss would back up the workers (with top management).
18. ST - Supervision-Technical: My boss would train the workers well.
19. Var - Variety: I could do something different every day.
20. WC - Working Conditions: The job would have good working conditions.

The MIQ is essentially a self-administered instrument which requires only a minimum of supervision. It should be administered in a quiet and comfortable setting. The vocational counselor may either call attention to the directions printed on the MIQ, or read the directions to the counselee. Since a separate answer sheet is used, the counselor should monitor the first several responses to ensure that the counselee is completing the answer sheet properly. Average time required to complete the MIQ is 35 minutes.

The MIQ is appropriate for use with adults or with high school students. It has a reading difficulty level of about 5th grade. However, needs (preferences for reinforcers) may not be well enough defined until the 10th grade for most individuals. Therefore, the MIQ is most appropriate for use with 16-year-old and older individuals.

The MIQ has been shown to be a highly reliable instrument. Need scores and need profiles have been found to be stable over periods of as long as ten months. Several validity studies of the MIQ have indicated that it measures what it was intended to measure. Technical details of reliability and validity studies may be found in the 1971 MIQ manual (Gay, et al.) and in the references included in the 1972 monograph on application of the Theory of Work Adjustment (Lofquist & Dawis).

Note: For additional information contact: Work Adjustment Project, Industrial Relations Center, University of Minnesota, Minneapolis, Minnesota 55455

Critical Vocational Behaviors

Gordon Krantz

Gordon Krantz is assistant director of the Cooperative School-Rehabilitation Center at Minnetonka, Minnesota. He has formerly served as a vocational rehabilitation counselor, district supervisor for a state vocational rehabilitation agency, psychologist at a sheltered workshop, and founding editor of the Vocational Evaluation and Work Adjustment Association Bulletin. He received his M.A. in psychology from the University of Minnesota.

The focus of this discussion is upon work adjustment as a means for promoting critical vocational behaviors. These behaviors have the following characteristics:

1. The behaviors are *critical*—they each make a critical difference in whether the client will be employed.
2. They are *vocational*—they apply directly to adult occupation at levels from competitive employment to at least sheltered employment and work activity.
3. They are *behaviors*—they are actions of the client that can be seen and described, rather than constructs supposed to be inside the client and to cause his actions.

From the last point, it follows that one might give a list of critical vocational behaviors which could then be dealt with according to any number of theories about why people behave the way they do. Describing behaviors as courses of client action may give the impression that the work adjuster can afford to be ignorant of why people are what they are, do what they do, and change what they do, since all he is dealing with is the behavior itself. Such an impression would be false. Granted, describing a problem as one of a vocational behavior has the virtue of not necessarily invoking some mysterious psycho'ogical dynamism. The dynamism may be there nevertheless and may require skillful management in order to bring a class of vocational behavior up to a critical minimum. A good list of critical vocational behaviors must therefore be non-theoretical without being anti-theoretical. It should leave freedom for "grabbing each case by its proper handle."

A good list should be founded upon observation of what people must do in order to be employed. Sitting down and making a free-hand analysis of what is probably required by jobs in general might be helpful, but an actual tally of why rehabilitation clients are not working (once their physical disabilities are dealt with as such) would be a great deal more helpful.

A list of some vocational behaviors found to be lacking in 60 clients of the Minneapolis Rehabilitation Center is given in "Pounce," a chapter by Robert A. Walker in the book *Behavioral Counseling: Cases and Techniques*. That list has been expanded for use here in discussion with Mr. Walker and rephrased in terms of the positive behaviors a person must emit in order to be employed. Mr. Walker has graciously given his consent to the use of his ideas and of the term "critical vocational behaviors" which he coined to title the list.

The list of critical vocational behaviors is contained in Table 1. Its outline encompasses some elements which, in the best of all possible worlds, might be taken for granted as solved before the client is referred for work adjustment. This is not the best of all possible worlds, so even the client's sense of direction is here considered as a potential element of work adjustment.

Table I.

Critical Vocational Behaviors

A. Job Objective Behaviors
   1. He has a vocational goal:
      a. being oriented toward employment or having a vocational goal at all;
      b. having a clear enough vocational goal so as to be able to move ahead at that point in his development.
   2. He has an appropriate work objective—has a goal which:
      a. is work he can do and for which he is qualified;
      b. is work he is willing to do;
      c. is actually available in the community.

B. Job-getting Behaviors
   1. He seeks work frequently enough.
   2. He has appropriate interview behavior—presents himself in such a way that:
      a. he makes clear to the employer his assets;
      b. he accounts for his problems, such as periods of unemployment;
      c. he shows proper enthusiasm about the work;
      d. he is reasonably free of mannerisms which stigmatize him or annoy the employer.
   3. He uses job leads—knows about sources of job leads and shows this knowledge in behavior.

C. Job-keeping Behaviors—behaviors which help the person to stay employed after he gets the job.
   1. He attends work regularly (in general, misses less than 12 days of work per year).
   2. He shows up for work promptly (misses being on time no more than about 12 times per year). Note that promptness must be defined in appropriate terms; some jobs require that the employee not show up until almost exactly time to start work, and other jobs require that the person be at the work station some time before actually starting work.
   3. He behaves toward co-workers in such a way that:
      a. he does not irritate them, make them mad, or distract them;
      b. he is not abused or victimized (this would create an administrative burden to the employer).
   4. He behaves in relation to supervision so that:
      a. he shows an acceptance of his subordinate role in relation to the supervisor;
      b. he creates minimum supervisory overhead consuming only ordinary supervisory time and attention.

5. He produces enough work:
   a. he remains consistently at his work station to an extent appropriate to the occupation;
   b. he maintains adequate production speed (a common problem being low productivity—rarely, a client may have too high a speed leading to his rejection as a rate-buster);
   c. he sustains effort and shows adequate stamina and demonstrates willingness to continue to exert himself against the demands of the work world.
6. He produces up to appropriate quality standards:
   a. he recognizes that there are quality standards and accepts them as reasonable demands upon him;
   b. he attends to meeting quality standards and has attained the capability of meeting them;
   c. he recognizes the point of "good enough" and does not sacrifice production rate to needless perfectionism.

There are other behaviors, not directly vocational, which must be emitted by the client at a critical minimum in order for him to function in employment. The fully rounded work adjustment professional or facility frequently has to deal with them as well by direct service or by seeing to it that someone else effectively attends to them. They may be called "Critical Employment-coupled Behaviors," and are contained in Table 2.

Table II.

Critical Employment-coupled Behaviors

D. Social Living Competencies
   1. He utilizes his leisure time so that he is:
      a. appropriately engaged and occupied rather than being at loose ends;
      b. satisfied and reasonably content with his leisure time occupation.
   2. He manages his money so that he does not spend more than he has.
   3. He has acceptable grooming and appearance.
   4. He manages legal problems adequately (avoids excessive garnishments, manages divorce and other personal suits, and effectively manages claims against such government services as social security or unemployment compensation).

E. Community Living Competencies
   1. He houses himself, finds a place to live and maintains reasonable stability in housing.
   2. He secures adequate medical services (rehabilitation clients, the disadvantaged and the retarded no less than the physically disabled frequently have an unusual amount of medical need. They frequently are plagued by a multitude of minor to serious medical problems and have shown themselves to be inept at securing services):
      a. he has a personal physician or is linked to a public medical service;
      b. secures health-supportive services.
   3. He is mobile in the community—he uses personal or public transportation when necessary for employment, recreation and personal affairs.

F. General and Personal Living Competencies
   1. He copes with family and marital relationships so that they do not interfere with employment.
   2. He has adequate personal adjustment and stability. (This is to be interpreted according to the individual and his situation and, above all, in relation to worker functioning. It is possible for a good worker to be chronically depressed or unhappy or even in acute phychic pain. He may think odd thoughts. However, the critical behaviors are those which are emitted in such a way as to influence his employability.)

The old-line rehabilitation worker might reasonably object that many of the critical vocational and employment-coupled behaviors have little to do with disability. Why then should a rehabilitation facility be called upon to deal with them? At this point, one can only contrast what theoretically ought to be true with what appears to be actually true. When rehabilitation agencies find that their clients actually have certain problems; when they find that they have the technologies to alleviate those problems, then the question of whether they should deal with those problems becomes academic. *The rehabilitation client who suffers from a circumscribed disability but is an otherwise employable person does not present a work adjustment problem.*

The technology of work adjustment is most needed when the issue is the general employability, the ability to be employed at all, of the client. A simplistic comparison is that job skill training is useful when the client needs to become a square peg for a square hole; work adjustment is most useful when he needs to become a peg at all.

Those homilies being out of the way, some illustrations can be given of how the critical vocational behaviors can be related to different theories of how people may be understood.

Theoretical Standpoints

Suppose that a client comes in with the label of mental retardation. Suppose further that the work adjuster holds the atheoretical view that there is no such "thing" as retardation but only that some people function at a retarded level. In this particular case, let us assume that there were two vocational behavior areas in which the client was deficient, quality standards and behavior toward coworkers. The work adjuster might then apply a technique like operant conditioning to create the ability to recognize and accept quality standards (C.6.b) and to extinguish behaviors which cause the client to be victimized and abused (C.3.b.). That work adjuster might then claim that his client is no longer retarded against the criterion of employment, without bothering with the theoretical question of whether he is curing retardation.

Suppose that another work adjuster had been raised in the tradition of vocational education. Within his outlook, there is a distinct body of activities called occupational exploration. Using real or simulated work as his instrument, that work adjuster could help his client acquire goals consisting of work he can do, acceptable to him and available in his community (A.2.a., b., c.).

The impression might be gained that a specific different theory is somehow required by each of the vocational behaviors. That impression can be dispelled by choosing a single behavior and analyzing it from the standpoint of various theories. Consider C.2., showing up for work on time. The work adjuster might conclude that his client is tardy for no deep reason and deal with the tardiness by reinforcing successively more prompt arrival at the work station, playing the role of a behavior modifier. The work adjuster might find another client whose lateness seems to be a resistant defense against a relationship transferred from the client's father to the adjuster, whereupon the adjuster would decide whether to resolve the complex or avoid it. Operating from a base of friendly personal acquaintance, the adjuster might find a third client whose lateness is due to too many late-late TV shows and might effectively advise a change in the client's bedtime. The adjuster might note another client who has a pattern to his lateness and recognize a cultural trait in which being late on Monday morning is better than not showing up at all,

in which case the adjuster would need to decide whether his client wants to affiliate with one culture or another. The point is that, having decided to address himself to some atheoretical critical vocational behaviors, the work adjustment professional still has to have an understanding of how human behavior can be changed and the ability to apply specific behavior change techniques which may be useful for certain behaviors.

The mention of alternate cultures in the paragraph above may remind the reader that the given list of critical vocational behaviors is strongly aligned with a single culture, that of the "work ethic." No apology for this fact is intended. The world of work still holds to a cultural model in which those behaviors are valued.

Additional Considerations

Space does not permit the development of other considerations related to a scheme of critical vocational behaviors, but a few important ones should be mentioned.

Levels of behavior should be considered. For example, at what level must a client accept a supervised role (C.4.a.) in order to function in competitive employment? In sheltered employment? In work activity? Even in dependency, helping around his home? As a self-employed person relating to customers? Perhaps a comprehensive scheme for assessing client progress in work adjustment would note the level attained in each behavior.

A related consideration is the idea of the *critical minimum*. If there is a critical minimum level at which the client must emit each behavior in order to function at each employment level, then the highest level which he finally attains in an important behavior limits the level at which he can function at all vocationally. For example, if a given client after work adjustment attains below the critical minimum demanded by sheltered employment in his ability to accept supervision (C.4.a.), perhaps it does him no good to have an otherwise appropriate job objective (A.2.) and produce an adequate volume (C.5.) of high quality (C.6.b.) work at the competitive level.

The outline of critical vocational behaviors presented in this article is necessarily as partial as is any other list of rehabilitation problems. Fortunately, human nature and the human situation are both flexible enough to defy neat schemes. Fortunately also, rehabilitation has developed the ability to deal with unique people and situations. A checklist is only a tool, valuable if it is useful.

Reference

Walker, R. "Pounce." *In Behavioral Counseling: Cases and Techniques*, eds., J. Krumboltz, and C. Thoresen. New York: Holt, Rinehart, and Winston, 1969. ■

JOB ANALYSIS SCHEDULE

1.) Estab. Job Title DOUGH MIXER 2.) D.O.T. Title DOUGH MIXER

3.) D.O.T. # 520.582-010 4.) Industrial Designation bake prod.

5.) WTG 06.02.15

6.) JOB SUMMARY:

Operates machines and equipment to mix ingredients to make straight and sponge (yeast) doughs according to formula: directs other workers in fermentation of dough, and cuts dough into pieces with hand cutter.

7.) WORK PERFORMED RATINGS:

Worker Function Levels

D	P	T
Data	People	Things
5	8	2

Work Field Cooking, Food Preparing Code 146

M.P.S.M.S. Bakery Products Code 384

8.) WORKER TRAIT RATINGS:

GED Reasoning _____ Math _____ Language _____ Total 2

SVP 1 2 3 4 (5) 6 7 8 9

Aptitudes G 3 V 4 N 3 S 4 P 4 Q __ K 3 F 4 M 3 E __ C __

Work Activities (1) 2 (3) 4 5 6 7 8 (9) (10)

Work Situations 1 (2) (3) (4) 5 6 7 (8) 9 (10)

Phys. Demands S L (M) H V 2 3 (4) (5) (6)

Working Cond. (I) 0 B 2 3 4 (5) 6 7

7. General Education

   a. Elementary 6 High School None Courses

   b. College None Courses

8. Vocational Preparation

   a. College None Courses

   b. Vocational Education None Courses

   c. Apprenticeship None

   d. Inplant Training None

   e. On-the-Job Training six months

   f. Performance on Other Jobs BLENDER---One year

9. Experience One year as BLENDER

10. Orientation Four hours

11. Licenses, etc. Food Handlers Certificate issued by the Health Department

12. Relation to Other Jobs and Workers

    Promotion: From BLENDER To BAKER

    Transfers: From None To None

    Supervision Received By BAKER

    Supervision Given DOUGH-MIXER HELPER

13. Machines, Tools, Equipment, and Work Aids -- Dough-mixing machine; balance scales; hand scoops; measuring vessels; portable dough troughs.

14. Materials and Products

    Bread dough

15. Description of Tasks:

1. Dumps ingredients into mixing machine: Examines production schedule to determine type of bread to be produced, such as rye, whole wheat, or white. Refers to formula card for quantities and types of ingredients required, such as flour, water, milk, vitamin solutions, and shortening. Weighs out, measures, and dumps ingredients into mixing machine. (20%)

2. Operates mixing machine: Turns valves and other hand controls to set mixing time according to type of dough being mixed. Presses button to start agitator blades in machine. Observes gauges and dials on equipment continuously to verify temperature of dough and mixing time. Feels dough for desired consistency. Adds water or flour to mixer using measuring vessels and adjusts mixing time and controls to obtain desired elasticity in mix. (55%)

3. Directs other workers in fermentation of dough: Prepares fermentation schedule according to type of dough being raised. Sprays portable dough rough with lubricant to prevent adherence of mixed dough to trough. Directs BLENDER in positioning trough beneath door of mixer to catch dough when mixing cycle is complete. Pushes or directs other workers to push troughs of dough into fermentation room. (10%)

4. Cuts dough: Dumps fermented dough onto worktable. Manually kneads dough to eliminate gases formed by yeast. Cuts dough into pieces with hand cutter. Places cut dough on proofing rack and covers with cloth. (10%)

5. Performs miscellaneous duties: Records on work sheet number of batches mixed during work shift. Informs BAKE SHOP FOREMAN when repairs or major adjustments are required for machines and equipment. (5%)

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16. Definition of Terms

Trough -- A long, narrow, opened vessel used for kneading or washing ingredients.

17. General Comments

None

---

18. Analyst Jane Smith Date 3/21/70 Editor John Rilley Date 3/30/70

Reviewed By Alexandra Purcey Title, Org. Foreman, Bake Shop

National Office Reviewer Mary Moore

SPEEDY INDEX FOR USE OF DOT/AEL/CIS MATERIALS

WHEN YOU WANT

LISTINGS OF:

these:	look in:	on pages:
Occupations by alphabet	DOT	965 - 1146
Occupations by industry	DOT	1157 - 1361
Occupations by Categories, Divisions, & Groups	DOT	xxxiv - xli
Industry Designations	DOT	1363 - 1368
Interest Areas & Worker Trait Groups	WTG Guide	vi - viii

EXPLANATIONS OF:

these:	look in:	on pages:
The parts of an occupational definition	DOT	xv - xvi
	CIS Guide	6
Occupational Group Arrangement	DOT	xvi - xvii
	CIS Guide	5 - 6
Data, People, Things	DOT	xvii - xviii
	DOT	1369 - 1371
	WTG	412 - 418
	*Handbook	73 - 83
Industry Designation	DOT	xix
Technical Terms used in definitions	DOT	947 - 963
Worker Trait Groups	DOL Guide	- -
	CIS Guide	7 - 9
Interest Areas & Worker Trait Groups	CIS Guide	24 - 36
Work Activities	CIS Guide	37 - 40
	WTG Guide	408 - 409
	Handbook	317 - 322
Work Situations	CIS Guide	41 - 45
	WTG Guide	410 - 411
	Handbook	297 - 313
Aptitudes	CIS Guide	52 - 63
	WTG Guide	421 - 422
	Handbook	231 - 294

*HANDBOOK FOR ANALYZING JOBS

these:	look in:	on pages:
General Educational Development	WTG Guide	423 - 424
	Handbook	209 - 220
Specific Vocational Preparation	WTG Guide	426
	Handbook	220 - 229
Physical Demands	WTG Guide	416 - 418
	Handbook	325 - 331
Working Conditions	WTG Guide	419 - 420
	Handbook	331 - 337

DETAILED CONTENT OF:

these	look in:	on pages:
Occupational Definitions	DOT	15 - 946
Worker Trait Groups	WTG Guide	1 - 407

TO FIND AN OCCUPATIONAL DEFINITION:

If you KNOW the occupational title:	Look up the title in the DOT index (pages 965 - 1146). Then use the 9 digit code to find the occupational description in the main body of the DOT (pages 15 - 946).
OR	
If you DON'T know the exact title:	Obtain a description of the tasks involved in the occupation. Then follow the directions in the DOT, page xxvi.

TO FIND THE WORKER TRAIT GROUP FOR AN OCCUPATION

Use the alphabetical listing of occupations, pages 336-715 in the DOL Guide. The six digit WTG code number is the last entry under each listing.

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- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	POSSIBLE OCCUPATIONS			
TITLE:				
OCCUPATIONAL CODE:				
INDUSTRY DESIGNATION:				
WORKER TRAIT GROUP:				

WORKER REQUIREMENT AREA	SELF-RATING		MY EVIDENCE **				
	CURRENT	POSSIBLE CHANGE					
	1	2	3	4	5	6	7
WORK ACTIVITIES (INTERESTS)							
1. Things & objects							
2. Business contact							
3. Routine, definite, organized							
4. Direct personal contact to help others							
5. Recognition or appreciation							
6. Communication of ideas & info.							
7. Scientific & technical							
8. Creative thinking							
9. Processes, methods or machines							
10. Working on or producing things							

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143

42

**RATING CODE: A. PERSONAL JUDGEMENT & OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHER: _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	SELF-RATING			POSSIBLE OCCUPATIONS			
				TITLE:			
				OCCUPATIONAL CODE:			
				INDUSTRY DESIGNATION:			
				WORKER TRAIT GROUP:			
WORKER REQUIREMENT AREA	CURRENT	POSSIBLE CHANGE	MY EVIDENCE				
	1	2	3	4	5	6	7
WORKING SITUATIONS (TEMPERAMENTS)							
1. Performing duties which can change frequently							
2. Performing routine tasks							
3. Planning & directing an entire activity							
4. Dealing with people							
5. Influencing opinions, attitudes & judgement							
6. Working under pressure							
7. Making decisions using personal judgement							
8. Evaluation by measurement and verification							
9. Interpret & express feelings, facts & ideas							
10. Achieve precise limits or accuracy standards							
PART II - WORKER TRAIT ASSESSMENTS							
WORKER REQUIREMENT AREA							
General Education Develop. (total)							
Reasoning							
Math							
Language							

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- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	SELF-RATING			POSSIBLE OCCUPATIONS			
	CURRENT	POSSIBLE CHANGE	MY EVIDENCE **				
TITLE:							
OCCUPATIONAL CODE:							
INDUSTRY DESIGNATION:							
WORKER TRAIT GROUP:							
	1	2	3	4	5	6	7
Aptitudes							
G General Learning Ability							
V Verbal							
N Numerical							
S Spatial							
P Form Perception							
Q Clerical							
K Motor Coordination							
F Finger Dexterity							
M Manual Dexterity							
E Eye-Hand-Foot Coordination							
C Color Discrimination							
Data, People, Things							

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147

**RATING CODE:
A. PERSONAL JUDGEMENT & OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	SELF-RATING		MY EVIDENCE**	POSSIBLE OCCUPATIONS			
	CURRENT	POSSIBLE CHANGE					
TITLE:							
OCCUPATIONAL CODE:							
INDUSTRY DESIGNATION:							
WORKER TRAIT GROUP:							
	1	2	3	4	5	6	7
SPECIFIC VOCATIONAL PREPARATION							
Physical Demands							
1. Lifting, carrying, pushing &/or pulling							
2. Climbing &/or balancing							
3. Stooping, kneeling, crouching &/or crawling							
4. Reaching, handling, fingering &/or feeling							
5. Talking &/or hearing							
6. Seeing							
Working Conditions							
1. Inside, outside, or both							
2. Extremes of cold plus temperature changes							
3. Extremes of heat plus temperature changes							
4. Wet and humid							
5. Noise and vibrations							
6. Hazards							
7. Fumes, odors, toxic conditions, dust, & poor ventilation							

**RATING CODE:
A. PERSONAL JUDGEMENT AND OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHER _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

PART III. ACTIVITIES REQUIRED TO ENSURE A GOOD PERSON/JOB MATCH:

AREA	ACTIVITY	COMPLETION DATE

132

PART IV. POSSIBLE RESIDUAL PROBLEMS:

AREA	POSSIBLE RESOLUTION	
	JOB MODIFICATION	SPECIALIZED PLACEMENT
150		151

Region I RRCEC, 1978
Charles W. Robinson

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

				POSSIBLE OCCUPATIONS			
			TITLE:				
			OCCUPATIONAL CODE:				
			INDUSTRY DESIGNATION:				
			WORKER TRAIT GROUP:				
WORKER REQUIREMENT AREA	SELF-RATING CURRENT	SELF-RATING POSSIBLE CHANGE	MY EVIDENCE **				
	1	2	3	4	5	6	7
WORK ACTIVITIES (INTERESTS)							
1. Things & objects							
2. Business contact							
3. Routine, definite, organized							
4. Direct personal contact to help others							
5. Recognition or appreciation							
6. Communication of ideas & information							
7. Scientific & technical							
8. Creative thinking							
9. Processes, methods or machines							
10. Working on or producing things							

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153

152

**RATING CODE: A. PERSONAL JUDGEMENT & OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHERS _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

				POSSIBLE OCCUPATIONS			
			TITLE:				
			OCCUPATIONAL CODE:				
			INDUSTRY DESIGNATION:				
			WORKER TRAIT GROUP:				
WORKER REQUIREMENT AREA	SELF-RATING CURRENT	SELF-RATING POSSIBLE CHANGE	MY EVIDENCE				
	1	2	3	4	5	6	7
WORK SITUATIONS (TEMPERAMENTS)							
1. Performing duties which can change frequently							
2. Performing routine tasks							
3. Planning & directing an entire activity							
4. Dealing with people							
5. Influencing opinions, attitudes & judgement							
6. Working under pressure							
7. Making decisions using personal judgement							
8. Evaluation by measurement & verification							
9. Interpret & express feelings, facts & ideas							
10. Achieve precise limits or accuracy standards							
PART II - WORKER TRAIT ASSESSMENTS							
WORKER REQUIREMENT AREA							
General Education Develop. (total)							
Reasoning							
Math							
Language							

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	SELF-RATING			POSSIBLE OCCUPATIONS			
				TITLE:			
				OCCUPATIONAL CODE:			
				INDUSTRY DESIGNATION:			
				WORKER TRAIT GROUP:			
	CURRENT	POSSIBLE CHANGE	MY EVIDENCE **				
	1	2	3	4	5	6	7
Aptitudes							
G General Learning Ability							
V Verbal							
N Numerical							
S Spatial							
P Form Perception							
Q Clerical							
K Motor Coordination							
F Finger Dexterity							
M Manual Dexterity							
E Eye-Hand-Foot Coordination							
C Color Discrimination							
Data, People, Things							

136

**RATING CODE: A. PERSONAL JUDGEMENT & OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

	SELF-RATING			POSSIBLE OCCUPATIONS			
	CURRENT	POSSIBLE CHANGE	MY EVIDENCE **				
	1	2	3	4	5	6	7
TITLE:							
OCCUPATIONAL CODE:							
INDUSTRY DESIGNATION:							
WORKER TRAIT GROUP:							
SPECIFIC VOCATIONAL PREPARATION							
Physical Demands							
1. Lifting, carrying, pushing &/or pulling							
2. Climbing &/or balancing							
3. Stooping, kneeling, crouching &/or crawling							
4. Reaching, handling, fingering &/or feeling							
5. Talking &/or hearing							
6. Seeing							
Working Conditions							
1. Inside, outside, or both							
2. Extremes of cold plus temperature changes							
3. Extremes of heat plus temperature changes							
4. Wet and humid							
5. Noise and vibrations							
6. Hazards							
7. Fumes, odors, toxic conditions, dust, & poor ventilation							

**RATING CODE: A. PERSONAL JUDGEMENT AND OPINION
B. COULD DOCUMENT THROUGH PERSONAL REFERENCES
C. DEMONSTRATED BY MY WORK HISTORY
D. COULD SHOW EVIDENCE FOR BOTH "YES" & "NO" ANSWERS
E. OTHER _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM SR

NAME: _____

PART III. ACTIVITIES REQUIRED TO ENSURE A GOOD PERSON/JOB MATCH:

AREA	ACTIVITY	COMPLETION DATE

PART IV. POSSIBLE RESIDUAL PROBLEMS:

AREA	POSSIBLE RESOLUTION	
	JOB MODIFICATION	SPECIALIZED PLACEMENT
160		161

Region I RRCEC, 1978
Charles W. Robinson

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	POSSIBLE OCCUPATIONS			
TITLE:				
OCCUPATIONAL CODE:				
INDUSTRY DESIGNATION:				
WORKER TRAIT GROUP:				

WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK ACTIVITIES (INTERESTS)									
1. Things & objects									
2. Business contact									
3. Routine, definite, organized									
4. Direct personal contact to help others									
5. Recognition or appreciation									
6. Communication of ideas & information									
7. Scientific & technical									
8. Creative thinking									
9. Processes, methods or machines									
10. Working on or producing things									

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	POSSIBLE OCCUPATIONS			
TITLE:				
OCCUPATIONAL CODE:				
INDUSTRY DESIGNATION:				
WORKER TRAIT GROUP:				

WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK SITUATIONS (TEMPERAMENTS)									
1. Performing duties which can change frequently									
2. Performing routine tasks									
3. Planning & directing an entire activity									
4. Dealing with people									
5. Influencing opinions, attitudes & judgement									
6. Working under pressure									
7. Making decisions using personal judgement									
8. Evaluation by measurement & verification									
9. Interpret & express feelings, facts & ideas									
10. Achieve precise limits or accuracy standards									
PART II - WORKER TRAIT ASSESSMENTS									
WORKER REQUIREMENT AREA									
General Education Develop. (total)									
Reasoning									
Math									
Language									

141

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	POSSIBLE OCCUPATIONS 6	7	8	9
TITLE:									
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
Aptitudes									
G General Learning Ability									
V Verbal									
N Numerical									
S Spatial									
P Form Perception									
Q Clerical									
K Motor Coordination									
F Finger Dexterity									
M Manual Dexterity									
E Eye-Hand-Foot Coordination									
C Color Discrimination									
Data, People, Things									

142

167

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

166

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	CLIENT SELF-RATING		COUNSELOR RATING		DOCUMENT **	POSSIBLE OCCUPATIONS			
	NOW 1	CHANGE 2	NOW 3	CHANGE 4	5	6	7	8	9
TITLE:									
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
SPECIFIC VOCATIONAL PREPARATION									
Physical Demands									
1. Lifting, carrying, pushing &/or pulling									
2. Climbing &/or balancing									
3. Stooping, kneeling, crouching &/or crawling									
4. Reaching, handling, fingering &/or feeling									
5. Talking &/or hearing									
6. Seeing									
Working Conditions									
1. Inside, outside, or both									
2. Extremes of cold plus temperature changes									
3. Extremes of heat plus temperature changes									
4. Wet and humid									
5. Noise and vibrations									
6. Hazards									
7. Fumes, odors, toxic conditions, dust, & poor ventilation									

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

PART III. INDIVIDUALIZED WRITTEN REHABILITATION PLAN CONSIDERATIONS

AREA	SERVICE	COMPLETION DATE

PART IV. POSSIBLE RESIDUAL PROBLEMS AFTER IWRP COMPLETION

AREA	POSSIBLE RESOLUTION	
	JOB MODIFICATION	SPECIALIZED PLACEMENT
170		171

Region I RRCEC, 1978
Charles W. Robinson

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	POSSIBLE OCCUPATIONS			
TITLE:				
OCCUPATIONAL CODE:				
INDUSTRY DESIGNATION:				
WORKER TRAIT GROUP:				

WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK ACTIVITIES (INTERESTS)									
1. Things & objects									
2. Business contact									
3. Routine, definite, organized									
4. Direct personal contact to help others									
5. Recognition or appreciation									
6. Communication of ideas & information									
7. Scientific & technical									
8. Creative thinking									
9. Processes, methods or machines									
10. Working on or producing things									

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	POSSIBLE OCCUPATIONS			
TITLE:				
OCCUPATIONAL CODE:				
INDUSTRY DESIGNATION:				
WORKER TRAIT GROUP:				

WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK SITUATIONS (TEMPERAMENTS)									
1. Performing duties which can change frequently									
2. Performing routine tasks									
3. Planning & directing an entire activity									
4. Dealing with people									
5. Influencing opinions, attitudes & judgement									
6. Working under pressure									
7. Making decisions using personal judgement									
8. Evaluation by measurement & verification									
9. Interpret & express feelings, facts & ideas									
10. Achieve precise limits or accuracy standards									
PART II - WORKER TRAIT ASSESSMENTS WORKER REQUIREMENT AREA General Education Develop. (total)									
Reasoning									
Math									
Language									

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	CLIENT SELF-RATING		COUNSELOR RATING		DOCU-MENT	POSSIBLE OCCUPATIONS			
	NOW	CHANGE	NOW	CHANGE	**				
	1	2	3	4	5	6	7	8	9
TITLE:									
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
Aptitudes									
G General Learning Ability									
V Verbal									
N Numerical									
S Spatial									
P Form Perception									
Q Clerical									
K Motor Coordination									
F Finger Dexterity									
M Manual Dexterity									
E Eye-Hand-Foot Coordination									
C Color Discrimination									
Data, People, Things									

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	CLIENT SELF-RATING		COUNSELOR RATING		DOCUMENT **	POSSIBLE OCCUPATIONS			
	NOW 1	CHANGE 2	NOW 3	CHANGE 4	5	6	7	8	9
TITLE:									
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
SPECIFIC VOCATIONAL PREPARATION									
Physical Demands									
1. Lifting, carrying, pushing &/or pulling									
2. Climbing &/or balancing									
3. Stooping, kneeling, crouching &/or crawling									
4. Reaching, handling, fingering &/or feeling									
5. Talking &/or hearing									
6. Seeing									
Working Conditions									
1. Inside, outside, or both									
2. Extremes of cold plus temperature changes									
3. Extremes of heat plus temperature changes									
4. Wet and humid									
5. Noise and vibrations									
6. Hazards									
7. Fumes, odors, toxic conditions, dust, & poor ventilation									

149

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

179

178

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

PART III. INDIVIDUALIZED WRITTEN REHABILITATION PLAN CONSIDERATIONS

AREA	SERVICE	COMPLETION DATE

150

PART IV. POSSIBLE RESIDUAL PROBLEMS AFTER IWRP COMPLETION

AREA	POSSIBLE RESOLUTION	
	JOB MODIFICATION	SPECIALIZED PLACEMENT
180		181

Region I RRCEC, 1978
Charles W. Robinson

VOCATIONAL APPRAISAL SUMMARY (VAS-S) NAME: _____

	1	2	3	4	5	6	7
WORK ACTIVITIES:							
1. Things/Objects							
2. Business Contact							
3. Routine/Organized							
4. Direct Personal Contact							
5. Recog. Apprec. From Others							
6. Communication of Ideas							
7. Scientific/Technical							
8. Creative Thinking							
9. Processes/Machines							
10. Producing Things							
WORK SITUATIONS:							
1. Variety/Frequent Change							
2. Routine Tasks							
3. Planning/Directing							
4. Dealing With People							
5. Influencing Others							
6. Work Under Pressure							
7. Decisions/Personal Judgement							
8. Decisions/Measured							
9. Interp./Feelings/Ideas/Facts							
10. Precise Limits/Standards							
GENERAL EDUCATIONAL DEVELOPMENT:							
1. Reasoning							
2. Mathematics							
3. Language							
4. Total							
SPECIFIC VOCATIONAL PREPARATION APTITUDES:							
G. General Learning Ability							
V. Verbal							
N. Numerical							
S. Spatial							
P. Form Perception							
Q. Clerical Perception							
K. Motor Coordination							
F. Finger Dexterity							
M. Manual Dexterity							
E. Eye-Hand-Foot Coordination							
C. Color Discrimination							
PHYSICAL DEMANDS							
1. Lift/Carry/Push/Pull							
2. Climb/Balance							
3. Stoop/Kneel/Crouch/Crawl							
4. Reach/Handle/Finger/Feel							
5. Talking/Hearing							
6. Seeing							
WORKING CONDITIONS							
1. Inside/Outside or Both							
2. Cold/Change of Temp.							
3. Heat/Change of Temp.							
4. Wet and Humid							
5. Noise and Vibration							
6. Hazards							
7. Fumes/Odors/TC/D/PV							
DATA/PEOPLE/THINGS							

COLUMN KEY

Region I RREC, 1978
Charles W. Robinson

Name: _____

VOCATIONAL EXPLORATION USING QUALIFICATIONS PROFILE DATA.

This activity can be used to expand explorations when too few are identified by other means, or to limit exploration when a client wishes to reduce options to a manageable size. It should be undertaken after a) other activities have failed to suggest a sufficient number of occupational areas for exploration, or b) the client's characteristics appear compatible to an unwieldy number of options.

Instructions.

1. Record the client's qualifications profile in the boxes to the right. Current or potential QPs will be selected depending on the particular situation.

2. Place this page over page 156 so that the columns are properly aligned.

3. Slide this page down over page 156 until you can compare client characteristics with those most typical of the occupations in WTG 01.01. Determine if the two sets of characteristics are compatible and either circle the number 01.01 in the box below to indicate the need for further exploration, or cross out the 01.01 to indicate a lack of compatibility. Depending on the purpose of the activity, "compatibility" may mean:

   - fairly identical profiles (when the purpose is to select just a few WTGs from many options),
   - generally similar patterns, with overlap in the major QP areas of Aptitude, GED, and PD for example (when the purpose is to expand the number of WTGs being considered),
   - similar QP characteristics of particular importance to the client, such as an SVP of specific maximum, a particular set of work situations which must be avoided, etc.

4. Continue to compare client characteristics with the other Worker Trait Groups until all 66 have been reviewed. (Don't forget pages 157 and 158.)

CAUTION!!! By comparing individual characteristics to the averages of occupational groups, suitable occupations may not be identified. These data should be used for general exploration only and not - repeat not - for final decisionmaking.

01.01 07.01
01.02 07.02
01.03 07.03
01.04 07.04
01.05 07.05
01.06 07.06
01.07 07.07
01.08 08.01
02.01 08.02
02.02 08.03
02.03 09.01
02.04 09.02
03.01 09.03
03.02 09.04
03.03 09.05
03.04 10.01
04.01 10.02
04.02 10.03
05.01 11.01
05.02 11.02
05.03 11.03
05.04 11.04
05.05 11.05
05.06 11.06
05.07 11.07
05.08 11.08
05.09 11.09
05.10 11.10
05.11 11.11
05.12 11.12
06.01 12.01
06.02 12.02
06.03
06.04

183

WORKER TRAIT GROUP

MASTER COMPARISON CHART

WRG	Work Activities	Work Situations	GED	SVP	KEY APTITUDES BY LEVEL										
					G	V	N	S	P	Q	K	F	M	E	C
01.01	5,6,8	3,4,5,7,9	5	7-9	1-2	1-2									
01.02	6,8	3,4,7,9	5	7-9	2-3			2	2		2-3	1-2-3	2-3		2
01.03	5,6,8	3,4,7,9	5	6-9	2	2									
01.04	5,6,8	3,4,7,9	5	7-9	1-2-3	1-2-3			2-3	2-3	2	2	2	1-2	
01.05	5,6,8	3,4,7,9	5	7-9	2-3			2-3			2-3			1-2	
01.06	1,9,10	7,8,10	4-5	6-8	3			2-3	2-3		3	2-3	3		3
01.07	2,6	4,5,7,9	4-5	2-4	3	3									
01.08	3,6	4,9	3-4	2-4	3-4						3-4		3-4		
02.01	1,6,7,8	7,8	5-6	8-9	1	1	1-2	2	3	3	3				3
02.02	1,6,7,8	7,8	5-6	8-9	1	1-2	1-2	1-2-3	1-2-3			2-3	3		3
02.03	4,5,7	4,7,8,10	5-6	8-9	1	1-2	1-2	1-2	1-2		2-3	1-2			3
02.04	1,7,9	8,10	4-5	6-8	2-3		2-3	3	2-3	3-4	3	3	3		3
03.01	1,2,7,9,10	1,3,4,7,8	5	6-8	2-3	3	3	3-4		3-4					
03.02	5,9	1,3,4,7,8	4	6-8	3	3	3	3					3		
03.03	3,4,6	1,4,7,8	3-4	3-7	3-4	3-4			3-4		3-4	3-4	3	3-4	
03.04	1,3,9	1,2	2-3	1-3					3-4		3-4	4	3		
04.01	2,5,6	1,3,4,6,7	5	6-9	2-3	2-3			3-4	3					
04.02	2,3,6	4,6,7	3-4	3-5	3	3			3-4	4	3-4		3-4		
05.01	1,2,6,7,8,9	1,4,7,8	5-6	8-9	1-2	1-2	1-2	2	2-3						
05.02	2,5,6,7,9	1,3,4,7,8	5	7-9	2	2	2-3	2-3	3	3					
05.03	1,7,9	7,8,10	5	7-8	2-3		2-3	2-3	2-3	3	2-3	2-3	3		
05.04	1,5,9	3,4,6,7,8, 10	5	7-8	2	2-3	2-3	2	2-3	3	3	3-4	3	3	
05.05	1,9,10	1,7,8,10	4	7-8	3		3	2-3	2-3		3	3	2-3		
05.06	1,9	1,3,8,10	3-4	6-8	3	3	3	3-4		3-4	3-4		3-4		
05.07	1,3,9	7,8,10	4	5-8	3		3-4	3	3				3-4		
05.08	1,3,9	8	4	3-5	3			3			3		3	3	4
05.09	1,2,3,9	4,8,10	3-4	2-6	3	3	3			3			3-4		
05.10	1,3,9,10	8,10	3	4-7			3-4	3	3		3	3-4	3		

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WORKER TRAIT GROUP MASTER COMPARISON CHART

WRG	Work Activities	Work Situations	GED	SVP	KEY APTITUDES BY LEVEL										
					G	V	N	S	P	Q	K	F	M	E	C
05.11	1,3,9	8,10	2-3	3-7	3			3			3		3	3-4	
05.12	1,3,9	8,10	2-1	2-3				3-4	3-4		3-4		3		
06.01	1,9,10	3,4,8,10	3-4	6-8	3		3	3	3		3	3	3		
06.02	1,3,9,10	2,3,4,8,10	3	4-7	3		3-4	3-4	3		3-4	3-4	3		
06.03	1,3,9,10	2,8,10	3	3-5	3			3-4	3		3-4	3-4	3		
06.04	1,3,9,10	2,10	1-2	2-3				4	3-4		3-4	3-4	3		
07.01	2,5,6	1,4,7,8	4-5	5-7	2-3	2-3	3			2-3					
07.02	1,2,3,9	2,8,10	3-4	3-7	3	3	3			2-3					
07.03	1,2,3	4,8,10	3-4	2-6	3	3	3			3		3-4			
07.04	2,3,6,9	1,4,8	3-4	3-7	3	3	3-4			2-3	3-4				
07.05	2,3,6	4,8,10	3-4	3-5	3	3	3-4			2-3		3-4			
07.06	1,3,9	2,4,8,10	3	4-6	3					2-3	2-3	3	3-4		
07.07	1,3	8,10	2-3	2-3	3-4	3-4				3		3-4	3-4		
08.01	2,5,6,7	4,5,7,8	4-5	5-8	2-3	2-3	2-3		3	3					
08.02	2,6	4,5,7,8	3-4	4-6	3	3	3			3					
08.03	2,3	4,5	2	2-3	4	4	3-4					3-4	3-4		
09.01	2,5,6	1,3,4,7	4	3-6	3	3				3-4					
09.02	2,8,9	1,4,7,8,10	4	5-6	3	3		3	2-3		2	3	3		3
09.03	2,3,9	4,7,8	3-4	3-4	3		3-4	3			3		3	3	
09.04	1,2,3	4	2-3	2-3	3-4	3-4	3-4			3-4	3-4	4	3-4		
09.05	2,3	4	2-3	2-3	3-4	3-4						4	3-4		
10.01	4,5,6,8	1,3,4,7	5-6	7-9	1-2	1-2	3								
10.02	4,6,7	1,4,7,8,10	4-5	6-8	2	2-3	2-3	3	3	3-4	3-4	3	3		3-4
10.03	2,3,4	1,4,7,8,10	3-4	3-6	3	3				3-4	3-4	3-4	3		
11.01	6,7,9	3,7,8	5-6	7-9	1-2	1-2	1-2	2		2					
11.02	2,4,5,6	1,3,4,7	5-6	7-9	1-2	1-2	3			2-3					
11.03	6,7,8	1,4,7,8	5-6	7-9	1-2	1-2	2-3			2-4					
11.04	2,5,6,8	1,4,5,7,8	5-6	8-9	1-2	1	1-3			3					
11.05	2,5,6	1,3,4,7,8	5-6	7-9	2	2	2-3			3					
11.06	1,2,5,6,7,9	4,7,8	5	7-8	2	2	2			2-3					

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WRG	Work Activities	Work Situations	GED	SVP	KEY APTITUDES BY LEVEL										
					G	V	N	S	P	Q	K	F	M	E	C
11.07	2,4,5,6	1,3,4,7	5	8-9	2	2	3			3					
11.08	2,5,6	1,3,4,7,8	5	7-8	1-2	1	3			3					
11.09	2,5,6	1,3,4,5,7	5	8-9	2	2	2-3			3-4					
11.10	2,6	1,3,4,7,8	5	6-8	2-3	2-3	3	3-4	3-4	3					
11.11	2,5	1,3,4,7,8	5	6-8	2-3	2-3	3		3-4	3					
11.12	2,5,6	1,3,4,7,8	5	7-8	2	2	3			3					
12.01	5	4,5,6,7,8	4-5	5-8	3	3-4		3-4	3-4	3-4	2	2	2	1	
12.02	5,9	6,7	3-4	5-8	3			2	3		2-3	2-3	2-3	1-2	

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ANSWERS TO EXERCISES APPENDIX B

Unit I, Exercise I, Page 3-4

1. position
2. abilities, requirements rewards, work needs
3. counselor
4. improve reasonably satisfy
5. occupational, work, needs, reinforcers
6. (a) occupation
   (b) job
   (c) occupation
   (d) position
   (e) job
   (f) task
   (g) element

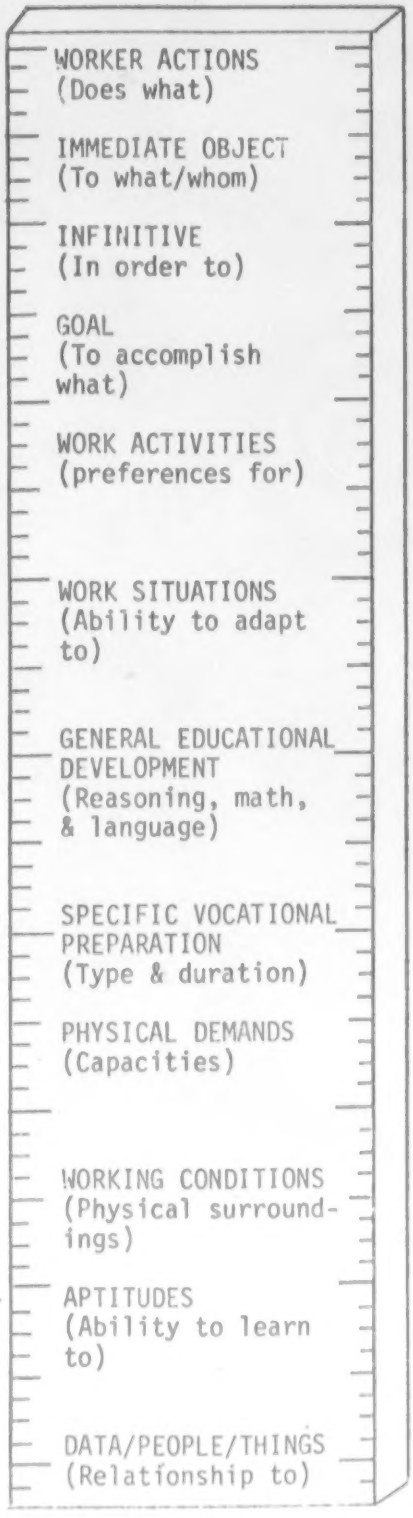
Unit I, Exercise II, Page 7

1. occupational yardstick, profile, qualifications
2. direct
3. a) indirect
   b) direct
   c) indirect
   d) direct
   e) indirect

Unit II, Exercise I, Page 11

1. public employment offices. high school students, VR personnel
2. job analysis
3. interviews
4. people, things, Worker Functions
   Work Fields
   MTEWA
   MPSMS
   Worker Traits
5. identification of definitions
   classification
6. occupational group
   industrial
   data, people, things
   worker trait

THE OCCUPATIONAL YARDSTICK



Henry's Characteristics & Needs		Demands & Rewards, Host Drakes Restaurant
Supervise, Coordinate, Train, Prepare	WORKER ACTIONS (Does what)	Supervises, Coordinates Train
Dining Room & Kitchen Staff	IMMEDIATE OBJECT (To what/whom)	Dining Room Staff Kitchen Staff
To Provide	INFINITIVE (In order to)	To Provide
A luxurious eating experience for people	GOAL (To accomplish what)	Fast & Courteous service to patrons
Help others, Business contact, Communication of ideas & information	WORK ACTIVITIES (preferences for)	Business contact, Recognition or appreciation from others, Communication of ideas & info
Variety, Directing others, Precise decision-making	WORK SITUATIONS (Ability to adapt to)	Frequent duty change, Planning & Directing an entire activity, Decision-making on judgement
Interpret data, Read reports & Journals MATH	GENERAL EDUCATIONAL DEVELOPMENT (Reasoning, math, & language)	Interpret data with limited standardization, Prepare business letters, Compute payroll, Records receipts & credits
Doesn't want more schooling. Will spend up to one year as trainee	SPECIFIC VOCATIONAL PREPARATION (Type & duration)	On-the-job training, 6-12 months to learn job and clientele
One hr. standing/walking, Maximum lifting: 20 lbs., Seeing, talking, hearing	PHYSICAL DEMANDS (Capacities)	Four + hrs. standing/ walking, Twenty lbs. lifting regularly, Seeing, talking, hearing
Inside	WORKING CONDITIONS (Physical surroundings)	Inside
Above average in intelligence, verbal, low average in clerical; Below average in numerical	APTITUDES (Ability to learn to)	Average verbal, numerical, and clerical
High people, average data, low things	DATA/PEOPLE/THINGS (Relationship to)	High data, average people, low things

7. job
occupational

8. characteristics
particular worker

Unit III, Exercise I, Page 17

	Base Title	Worker Action	Immed. Obj.	Infin.	Goal
1.	OVERLAY PLASTICIAN	installs	stringers and plywood sheets	to strengthen	boat bottoms
2.	MILLER	tends	mills	to pulverize	mica
3.	BOUNCER	patrols	place of entertainment	to preserve and protect	order and property
4.	FLOCKER	cements	flock	to give	velvety or wooly appearance
5.	HISTOPATH-OLOGIST	studies	tissue	to provide	data on body function and cause and progress of disease
6.	PHYSIOLOGIST	conducts	research	(to determine)	(organ system functions)
7.	SUPERVISOR, HISTORIC SITES	directs and coordinates	personnel activity	to conform	(to state policy)

Unit IV, Exercise I, Page 24.

1. 978
2. 1031
3. 1130
4. 1030
5. 1130
6. 1140
7. 1061
8. 1031
9. 1078
10. 1055

Unit IV, Exercise II, Page 25

	DOT #	BASE TITLE	TITLE TYPE	OTHER
1.	616.685-078		BASE	
2.	617.360-014	SWAGING-MACHINE ADJUSTER	Alternate	
3.			Term	By type of activity
4.	206.367-014	FILE CLERK	Undefined, related	By type of material filed
5.	388.663-010	ELEVATOR OPERATOR	Unbracketed	Starter supervises operator
6.	764.684-014		Base Title	Prepares barrels for the aging of whiskey
7.			Master	Operates, places, moves, positions, controls, guides, starts, stops. Classified by type of machine, type of garment or part thereof, or machine attachment
8.	649.685-034	DRILL-PUNCH OPERATOR	BRACKETED	
9.	199.281-010	GEMOLOGIST	Alternate	
10.	075.374-010	NURSE, GENERAL DUTY	BASE	Independent contracting for nursing services, usually on a per patient basis
	075.374-018	NURSE, PRIVATE DUTY	BASE	

Unit V, Exercise I, Page 27

1. 2
2. 3
3. 7
4. 8
5. 4
6. 6
7. 0/1
8. 8
9. 9

Unit V, Exercise II, Page 28

1. a) 12
   b) 92
   c) 51
   d) 77
   e) 45
   f) 93
   g) 65
   h) 14

2. a) Occupations in art
   b) Computing and account-recording occupations
   c) Sales occupations, services
   d) Occ. in machining, stone, clay, glass and related materials
   e) Occ. in production and distribution of utilities
   f) Hunting, trapping and related occupations
   g) Occ. in fabrication and repair of plastics, synthetics, rubber and related products
   h) Welders, cutters, and related occupations

Unit V, Exercise III, Page 29

1. Decorate tiles, mosaic designs, supervise
2. 7
3. 77
4. 773
5. 773.131-010

Unit V, Exercise IV, Pages 30-31

1. wood

2. a) process (56)
   b) machine (66)
   c) fabricate and repair (76)

3. a) 250
   b) 902
   c) 771
   d) 723
   e) 185
   f) 312

4. a) Secretary
   b) Drafter
   c) Judge
   d) Utilities Salesperson
   e) Usher

5. a) SLIVER-MACHINE OPERATOR/521.685-018/TENDS/SLIVER MACHINE/TO SLIVER/ALMONDS

   b) EXTRUDER OPERATOR/614.482-014/SETS UP & OPERATES/EXTRUSION PRESS/TO SHAPE/HOT BILLETS INTO TUBING

   c) ASSIGNMENT CLERK/215.387-010/ASSIGNS/OPERATING PERSONNEL/TO MEET/COMPANY MANPOWER AND TRANSPORTATION NEEDS

d) TREE TRIMMER/408.664-010/TRIMS/TREES/TO MINIMIZE/STORM AND SHORT-CIRCUIT HAZARDS

or

LABORER, BRUSH CLEARING/459.687-010/CUTS/TREES, BRUSH/TO CONTROL/GROWTH ALONG UTILITY LINES

e) STRESS ANALYST/002.061-030/CONDUCTS/STRESS ANALYSIS/TO EVALUATE/ABILITY TO WITHSTAND STRESSES IMPOSED DURING FLIGHT OR GROUND OPERATIONS

Unit VI, Exercise I, Page 34

1. Like most skilled trades, carpenters have DPT level of .381 which means that the worker needs to be able to compile data. Carpenters have to study blueprint (reading) and measure boards before cutting (math) for example.
2. For most jobs, high pay comes with higher worker function levels which require a combination of education, training and experience.
3. Generally, freedom from constant supervision and freedom to organize your own work is increased as DPT levels become more complex. If client worked as a helper (.687 DPT), is he/she now able to function as FLOORLAYER (.481 DPT)? Major DATA function increases involve measuring and blueprint reading. Major THING increases are in speed and precision.
4. Both jobs have base titles of "Inspector," but one has significantly higher THING requirements and somewhat higher DATA requirements, while the other has exactly the same DPT levels as the former job. Should investigate both jobs, but can technician is most likely to require similar skill levels.

Unit VI, Exercise II, Page 37

1.	A. Boilermaker Helper I	805.687-010
	B. Boilermaker Inspector	805.667-010
2.	Glass-lathe Operator	674.387-010
3.	Inspector, Paper Products	649.367-010
	Paper-Bag Inspector	649.367-010
4.	Yes	
5.	A. Cook Helper, Pastry	313.684-010
	B. 9	

Unit VI, Exercise III, Page 38

1. PRINCIPAL 099.
2. 091.107-010
3. TEACHER, SECONDARY SCHOOL 091.227-010
4. TEACHER AIDE I 099.
5. TEACHER AIDE II 249.

Unit VII, Exercise I, Page 40

1. 1195
2. OGA 1, 2
3. .117-.687
4. 061, 134, 167, 260, 261, 281, 361, 364, 367, 381, 384, 386, 387, 482, 667, 683, 684, 685, 687.

Unit VII, Exercise II, Pages 41-42

1. Measurer 869.487-010
   Inspector and Tester 809.687-018
2. Firesetter 692.360-018
   Glass-Lathe Operator 674.382-010
   Job Setter 616.380-014
   Electronic-Production-Line-Maintenance Mechanic 629.281-022
3. A. Laborer, Canvas Shop 789.687-090
      Awning-Hanger Helper 869.687-010
      Awning Spreader 789.687-090
      Installation Helper 869.687-010
      Ring Sewer 789.687-090
   B. Boat-Canvas-Maker-Installer 789.261-010
   C. Inspector, Canvas Products 789.587-014
   D. Tape or rule, scissors, gummed label, chalk, pencil, paper/tag.

Unit VIII, Exercise I, Page 46

I. (1) Redeye Gunner 378.682-010 (military serv.)
   comparing, speaking, operating-controlling

   (2) Flat Polisher 603.685-054 (clock and watch)
   comparing, taking instructions--helping, tending

   (3) Polishing-Machine Operator 603.682-026 (any ind.)
   comparing, taking structions--helping, operating-controlling

   (4) Grinder Operator, External, Tool 603.280-010 (mach. shop)
   analyzing, taking instructions--helping, setting up

   (5) Supervisor, Grinding 603.130-010 (any ind.)
   coordinating, supervising, setting up

II. The military occupation was higher in THINGS than his first civilian job, a not unusual drop. All other jobs represented increases--consistently in THINGS, with two jumps in DATA and a single large jump in PEOPLE. The progress was orderly and logical in an upwardly mobile direction.

III. Blueprint reading skills were essential to getting the Polishing-Machine Operator's job. The course work in supervisory and management related directly to the job as Grinding Supervisor.

Unit VIII, Exercise II, Pages 49-50

A. HEEL SORTER 788.584-010
(boot and shoe)

Sorts and grades/leather heels/(to group for)/discard, reprocessing, shipment, and storage

Examines, groups/heels/(to identify)/nicks, scars, brittleness, etc.

Other Relevant Information: would satisfy her desire to work with hands and to be mobile.

B. FURNITURE ASSEMBLER 763.684-038
(furniture)

Assembles/wooden parts/to form/sections, frames or complete articles of furniture

Other Relevant Information: requires lifting (Alice is "physically small.") Dirty, noisy environment.

C. Information provided could apply to either of two base titles:

C-1. CLEANER, COMMERCIAL OR INSTITUTIONAL
(any ind.) 381.687-014

Cleans/(designated motel areas)/to maintain/premises in clean and orderly condition

Cuts and trims/grass/(to maintain)/(lawns)

Shovels/snow/(to maintain)/(walks)

Sets up and dismantles/tables, chairs (and conference equip.)/(to accommodate)/(meeting format)

C-2. HOUSECLEANER 323.687-018
(hotel and restaurant)

Cleans/halls, lobby and conference rooms/to maintain/premises in clean and orderly manner

Prepares/sample rooms/(to meet)/(customer specifications)

Other Relevant Information: Alice has experience cleaning at family motel.

D. KITCHEN HELPER or
DISHWASHER MACHINE 318.687-010
(hotel and restaurant)

Scrapes/food from dirty dishes/(to prepare them for)/dishwasher

Places/dirty dishes in racks/(to prepare them for)/dishwasher

Operates/dishwashing machine/to clean and sanitize/dishes, silverware and utensils

Performs/other assigned duties/to maintain/kitchen equipment in clean and orderly condition

Unit X, Exercise I, Page 59

1.	402.387-010	03	03.04
2.	375.367-010	04	04.02 or
	375.263-014	04	04.01
3.	153.244-010	12	12.01
4.	131.267-018	11	11.08
5.	045.107-042	10	10.01
6.	196.263-014	05	05.04
7.	525.587-010	06	06.04
8.	905.663-014	05	05.08
9.	292.353-010	08	08.02
10.	920.687-166	06	06.04

Unit X, Exercise II, Page 60

1. Coll. ed. for 05.01 level
2. 06.01
3. 07.06
4. 08.02
5. 10.01, 10.02, 11.02

Unit X, Exercise III, Page 61

1. 17
2. 6
3. DENTAL ASSISTANT 079.371-010
4. Yes Physical Therapy Aide 355.354-010

Unit XI, Exercise I, Page 64

1. B
2. D
3. A
4. E
5. C

Unit XII, Exercise I, Page 69

1. E
2. A
3. B
4. D
5. C

Unit XII, Exercise II, Page 72

3 - Instructs; explains and demonstrates; drills; teaches; choreographs.

4 - Instructs pupils; explains and demonstrates techniques; drills pupils; teaches history of dance; directs dance performances.

7 - Observes students to determine qualifications.

9 - Choreographs and directs dance performance.

Unit XII, Exercise III, Page 73

	WS	WA
1.	3,4,9	4,5,6,8
2.	2,8	3,9
3.	4,5	2,4
4.	3,4	4,5,6,8
5.	2,8	1,3,10
6.	1,6	---
7.	1,3,4,7	4,5,9
8.	3,6,10	5,7,9

Unit XIII, Exercise I, Page 76

1. II., Because balancing books and compiling statistical reports is at Math Level 4 whereas maintenance of one section of a set of financial records (such as payroll) is at Level 3.

Unit XV, Exercise I, Page 81

1. a. GED
   b. SVP
   c. GED
   d. SVP
   e. Experience
   f. SVP
   g. SVP
   h. Experience
   i. SVP
   j. Experience
   k. SVP

2. a. -9
   b. -8
   c. -2
   d. -6
   e. -3
   f. -7
   g. -2
   h. -4
   i. -5

Unit XVI, Exercise I, Page 85

1. AIRPLANE INSPECTOR
   1.L. (None of the tools or parts listed seem likely to weigh over 20 pounds.)
   2. Inspects fit of parts, examines airframe, engine, and operating equipment. (climbing)
   3. Inspects fit of parts, examines airframe, engine, and operating equipment. (suggests getting into small spaces)

4. Using Tachometer, pressure guages, protractor, micrometers, and calipers (requires delicate touch)

6. Examines, inspects, collects data (seeing)

2. WATER-QUALITY TESTER

1.L. Collects waste water samples. (have to move about to collect)

4. Collects waste water samples. (have to be handled)

6. Reviews data, observes operations, inspects (color and mechanical operations)

Unit XVII, Exercise I, Page 88

1. Examines ... adjustment of ailerons and rudders; signals (that engines be started)
2. Airplane Inspector
3. Airplane Inspector
4. Airplane Inspector — poor ventilation, fumes; Water-Quality Tester — fumes, odors, toxic conditions

Unit XVIII, Exercise I, Page 90

1. less
2. action verb
3. most
4. increases
5. Airplane Inspector

Unit XVIII, Exercise II, Page 91

1. Assembler, Gold Frame
2. Cheese Blender
3. Tube Assembler, Electron

Unit XVIII, Exercise III, Page 92

1.	CLERK-TYPIST	203.362-010	07.06
2.	COMPUTER OPERATOR	213.362-010	07.06
3.	FILE CLERK I	206.362-010	07.07
4.	213		

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Roland Palumbo

						POSSIBLE OCCUPATIONS			
					TITLE:	Supervisor Grinding	Tool Crib Supervisor	Metal Control Coordinator	Computer Operator
					OCCUPATIONAL CODE:	603.130-010	222.137-046	222.167-010	213.362-010
					INDUSTRY DESIGNATION:	any ind.	clerical	metal alloy	Clerical
					WORKER TRAIT GROUP:	06.01	05.09	05.09	07.06
WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CHANGE 2	COUNSELOR RATING NOW 3	CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK ACTIVITIES (INTERESTS)									
1. Things & objects	yes		yes			yes	yes	yes	yes
2. Business contact						?	yes	yes	
3. Routine, definite, organized	?						yes	yes	yes
4. Direct personal contact to help others	yes								
5. Recognition or appreciation									
6. Communication of ideas & information									
7. Scientific & technical									
8. Creative thinking									
9. Processes, methods or machines	yes		yes			yes	yes	yes	yes
10. Working on or producing things	yes		yes			yes			

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**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Ronald Palumbo

						POSSIBLE OCCUPATIONS			
					TITLE:	Supervisor Grinding	Tool Crib Supervisor	Metal Control Coordinator	Computer Operator
					OCCUPATIONAL CODE:	603.130-010	222.137-046	222.167-010	213.362-010
					INDUSTRY DESIGNATION:	any ind.	clerical	non fer. Metal alloy	Clerical
					WORKER TRAIT GROUP:	06.01	05.09	05.09	07.06
WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CHANGE 2	COUNSELOR RATING NOW 3	CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORKING SITUATIONS (TEMPERAMENTS)									
1. Performing duties which can change frequently						Yes	Yes	Yes	Yes
2. Performing routine tasks	?								
3. Planning & directing an entire activity	Yes		(?)		D	Yes	Yes	Yes	
4. Dealing with people			(?)		D	Yes	Yes	Yes	
5. Influencing opinions, attitudes & judgement									
6. Working under pressure			(?)						Yes
7. Making decisions using personal judgement									
8. Evaluation by measurement & verification	Yes		Yes			Yes	Yes	Yes	Yes
9. Interpret & express feelings, facts & ideas			Yes		A, B, C				
10. Achieve precise limits or accuracy standards	Yes		Yes		A, B, C	Yes			Yes
PART II - WORKER TRAIT ASSESSMENTS									
WORKER REQUIREMENT AREA									
General Education Develop. (total)	?		(?)		A	4	4	4	4
Reasoning	4		3-4		A	4	4	4	4
Math	?		(?)		A	4	3	3	4
Language	4		3			4	4	4	4

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Ronald Palumbo

	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	POSSIBLE OCCUPATIONS 6	7	8	9
TITLE:						Supervisor Grinding	Tool Crib Supervisor	Metal Control Coordinator	Computer Operator
OCCUPATIONAL CODE:						603.130-010	222.137-046	222.167-010	213.362-010
INDUSTRY DESIGNATION:						any ind.	Clerical	Non fer. Metal alloy	Clerical
WORKER TRAIT GROUP:						06.01	05.09	05.09	07.06
Aptitudes									
G General Learning Ability	3		(3/4?)		B/A	3	3	3	3
V Verbal	4		(4)		B/A	3	3	3	3
N Numerical	7		(?)		C	3	3	3	3
S Spatial	3		3		B	3	4	4	3
P Form Perception	3		3		B	3	4	3	3
Q Clerical			(?)			3	3	3	2
K Motor Coordination			(?)			3	4	4	3
F Finger Dexterity			(?)			3	4	4	3
M Manual Dexterity			(?)			3	4	4	4
E Eye-Hand-Foot Coordination						–	–	–	–
C Color Discrimination						–	4	4	–
Data, People, Things			?		D	130	137	167	362

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: _____

	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	POSSIBLE OCCUPATIONS 6	7	8	9
TITLE:						Supervisor Grinding	Tool Crib Supervisor	Metal Control Coordinator	Computer Operator
OCCUPATIONAL CODE:						603.130-010	222.137-046	222.167-010	213.362-010
INDUSTRY DESIGNATION:						Any. Ind.	Clerical	non fer. metal alloy	clerical
WORKER TRAIT GROUP:						06.01	05.04	05.04	07.04
SPECIFIC VOCATIONAL PREPARATION	5		7			7	6	6	6
Physical Demands									
1. Lifting, carrying, pushing &/or pulling	L		L		A/E	L-111	L	L	L
2. Climbing &/or balancing			No		A				
3. Stooping, kneeling, crouching &/or crawling			No		A				
4. Reaching, handling, fingering &/or feeling	4		Yes		A/B	Yes	Yes	Yes	Yes
5. Talking &/or hearing			? Yes		A/B	Yes	Yes	Yes	Yes
6. Seeing			?		A/B	Yes	Yes	Yes	Yes
Working Conditions									
1. Inside, outside, or both	I		I			I	I	I	I
2. Extremes of cold plus temperature changes									
3. Extremes of heat plus temperature changes									
4. Wet and humid									
5. Noise and vibrations	5		?			Yes		Yes	
6. Hazards			No						
7. Fumes, odors, toxic conditions, dust, & poor ventilation									

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER Case record for Virgie

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Unit XX, Exercise I, Page 106-107

A. 1. Can Ronald be cleared for a job in which walking and standing (indoors, on smooth, level surfaces with little or no climbing) several hours a day is required? The walking and standing need not be constant but would probably involve more than half the day with periodic opportunities to sit.

2. Would you recommend a visual examination since the jobs being considered require substantial reading of technical materials including tables, blueprints, etc.?

B. 1. Can Ron perform at average levels in general learning, verbal and numerical areas? Although test data will be helpful, response to this question should also reflect his performance in practical situations.

2. What is Ron's current proficiency in working with tools and equipment? Can he adapt to his weakness on the right side by using jigs, compensatory motions with other body parts, etc.? Of particular concern is his ability to set up machinery such as drill presses and grinders.

3. Can Ron work quickly, accurately, and neatly with numbers, inventories, and records?

4. Can Ron instruct and supervise other people? Of particular concern is his ability to organize material to be taught, and then present it in understandable language.

5. Can Ron tolerate a full day of work where he is on his feet at least half the time?

C. 1. To what extent are you involved in keeping the family finances straightened out? Do you do the banking, bill paying, etc.?

2. Are you improving in your speech and do people generally understand you? Do you find that your speech is better at some times than others?

3. To what extent does noise bother you?

- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Alice Pinkerton

						POSSIBLE OCCUPATIONS			
					TITLE:	Heel Sorter	Furniture Assembler	Cleaner, Commercial	Kitchen Helper
					OCCUPATIONAL CODE:	788.584-010	763.684-035	381.687-014	318.687-010
					INDUSTRY DESIGNATION:	Boot + Shoe	Furn.	Any Ind.	Hotel + Rest.
					WORKER TRAIT GROUP:	06.04	06.02	05.12	05.12
WORKER REQUIREMENT AREA	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORK ACTIVITIES (INTERESTS)									
1. Things & objects			Yes		B	Yes	Yes	Yes	Yes
2. Business contact									
3. Routine, definite, organized			Yes		B	Yes	Yes	Yes	Yes
4. Direct personal contact to help others									
5. Recognition or appreciation									
6. Communication of ideas & information									
7. Scientific & technical									
8. Creative thinking									
9. Processes, methods or machines									
10. Working on or producing things							?		

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Alice Pinkerton

	CLIENT SELF-RATING		COUNSELOR RATING			POSSIBLE OCCUPATIONS			
						TITLE:	Heel Sorter	Furniture Assembler	Cleaner Commercial	Kitchen Helper
						OCCUPATIONAL CODE:	788.584-010	763.684-038	381.687-014	318.687-010
						INDUSTRY DESIGNATION:	Boot & Shoe	Furn.	Any Ind.	Hotel & Rest.
						WORKER TRAIT GROUP:	06.04	06.02	05.12	05.12
WORKER REQUIREMENT AREA	NOW 1	CHANGE 2	NOW 3	CHANGE 4	DOCUMENT ** 5	6	7	8	9
WORKING SITUATIONS (TEMPERAMENTS)									
1. Performing duties which can change frequently									
2. Performing routine tasks			Yes		B	Yes	Yes	?	Yes
3. Planning & directing an entire activity									
4. Dealing with people									
5. Influencing opinions, attitudes & judgement									
6. Working under pressure									
7. Making decisions using personal judgement									
8. Evaluation by measurement & verification			?			Yes	Yes		
9. Interpret & express feelings, facts & ideas									
10. Achieve precise limits or accuracy standards							2		
PART II - WORKER TRAIT ASSESSMENTS									
WORKER REQUIREMENT AREA									
General Education Develop. (total)			1?		B	2	2	1	1
Reasoning			1?			2	2	1	1
Math			1?			1	1	1	1
Language			1?			2	1	1	1

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Alice Pinkerton

	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	POSSIBLE OCCUPATIONS 6	7	8	9
TITLE:						Heel Sorter	Furniture Assembler	Cleaner Commercial	Kitchen Helper
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
Aptitudes									
G General Learning Ability			4-5		D	3	3	4	4
V Verbal			4		B		4	4	4
N Numerical			5		B	4	4	4	
S Spatial			?		D	4	4	4	4
P Form Perception			?		D	3	4	4	4
Q Clerical						4	4		
K Motor Coordination			4-?		D	4	3	4	4
F Finger Dexterity			4		D	4	3	4	4
M Manual Dexterity			4?		D	4	3	3	4
E Eye-Hand-Foot Coordination									
C Color Discrimination						4			
Data, People, Things			637			587	684	687	687

**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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- VOCATIONAL APPRAISAL SUMMARY -
FORM VR

NAME: Alice Pinkerton

	CLIENT SELF-RATING NOW 1	CLIENT SELF-RATING CHANGE 2	COUNSELOR RATING NOW 3	COUNSELOR RATING CHANGE 4	DOCUMENT ** 5	POSSIBLE OCCUPATIONS 6	7	8	9
TITLE:						Heel Sorter	Furniture Assembler	Cleaner Commercial	Kitchen Helper
OCCUPATIONAL CODE:									
INDUSTRY DESIGNATION:									
WORKER TRAIT GROUP:									
SPECIFIC VOCATIONAL PREPARATION						4	4	2	2
Physical Demands									
1. Lifting, carrying, pushing &/or pulling			L-M		B	S-L	L-M	M	L-M
2. Climbing &/or balancing								Yes	
3. Stooping, kneeling, crouching &/or crawling								Yes	
4. Reaching, handling, fingering &/or feeling			Yes		B	Yes	Yes	Yes	Yes
5. Talking &/or hearing									
6. Seeing						Yes	Yes	Yes	Yes
Working Conditions									
1. Inside, outside, or both			I		A				
2. Extremes of cold plus temperature changes									
3. Extremes of heat plus temperature changes									Yes
4. Wet and humid			?						Yes
5. Noise and vibrations			?						? Yes
6. Hazards			?				?		? Yes
7. Fumes, odors, toxic conditions, dust, & poor ventilation									

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**RATING CODE: A. COUNSELOR OBSERVATION AND/OR JUDGEMENT
B. CLEARLY DEMONSTRATED BY CASE RECORD CONTENT
C. RELEVANT WORK HISTORY
D. CASE RECORD CONTAINS CONFLICTING DATA
E. OTHER _____

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Unit XX, Exercise II, Page 114

A. - To what extent can the client meet worker requirements in WS 2?
- More information about Alice's GED and that required for the Kitchen Helper position.
- The extent to which the client's spatial relations and form perception aptitudes are intact.
- More precise data concerning Alice's aptitude in K, F, and M areas.
- The client's ability and willingness to handle the working conditions of WC 4, 5, 6.
- The extent to which those conditions are actually present in the Kitchen Helper and Furniture Assembler positions.

B. Kitchen Helper

WORK ACTIVITIES CHECKLIST

Directions: Part 1

Use the following scale to rate your preferences for each work activity. CIRCLE the rating describing your feelings about working in an occupation which would involve you in that activity.

+2 Would LIKE the activity VERY MUCH.

+1 Would LIKE the activity.

0 Would NEITHER LIKE NOR DISLIKE the activity.

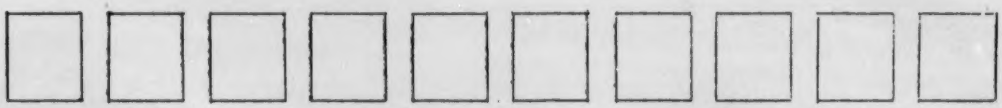
-1 Would DISLIKE the activity.

-2 Would DISLIKE the activity VERY MUCH.

No.	Type of Activity	Circle the rating describing your feelings about each activity.				
1	Activities dealing with things and objects.	+2	+1	0	-1	-2
2	Activities involving business contact.	+2	+1	0	-1	-2
3	Activities of a routine, definite, organized nature.	+2	+1	0	-1	-2
4	Activities involving direct personal contact to help or instruct others.	+2	+1	0	-1	-2
5	Activities resulting in recognition or appreciation from others.	+2	+1	0	-1	-2
6	Activities involving the communication of ideas and information.	+2	+1	0	-1	-2
7	Activities of a scientific and technical nature.	+2	+1	0	-1	-2
8	Activities involving creative thinking.	+2	+1	0	-1	-2
9	Activities involving processes, methods, or machines.	+2	+1	0	-1	-2
10	Activities involving working on or producing things.	+2	+1	0	-1	-2

Directions: Part 2

List in the order of your preference the ten types of work activities. Place the activity type numbers in the boxes below. Use your ratings given to each activity to help determine the order. For example, if you rated any activities +2, they should be listed ahead of any rated +1.



First Choice 2nd 3rd 4th 5th 6th 7th 8th 9th Last Choice

Adapted with permission from the Work Activities Checklist

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Directions: Part 3

Transfer the results of this activity to Page 1 of the Vocational Appraisal Summary (VAS).

A. Look at the order in which you ranked the Work Activities in Part 2 above. Select the three or four activities that you rated as most interesting. Enter the word "YES" in the corresponding boxes in column 1, Page 1 of the VAS to show your strongest preferences for these Work Activities.

B. Enter the word "NO" in the appropriate boxes in column 1 of the VAS to show the Work Activities that you said you would dislike the most. (These are probably the Work Activities to which you assigned a -2 value).

C. Look at your "NO" repsonses again. Are there any activities you would be willing to consider performing on a job which met your requirements in other ways? If so, put "YES" in the appropriate box in column 2. This will indicate that you would be willing to consider a job which involved the activity if other factors were present.

D. What "evidence" do you have for your decisions? Work history, education, hobbies, of just "a feeling". Use the rating code at the bottom of Page 1 of the VAS to complete column 3. You may use more than one code letter for each box, if you wish.

WORK SITUATIONS CHECKLIST

Directions: Part 1

Use the following scale to rate your preferences for each work situation. CIRCLE the rating describing your feelings about working in an occupation which would involve you in that situation.

+2 Could ADAPT READILY. Could be SATISFIED with such work.

+1 Could ADAPT to the situation.

0 Am NOT SURE or have NO STRONG feelings about the situation.

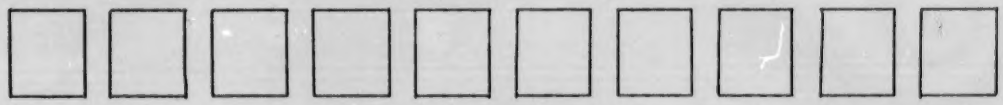
-1 Would be DIFFICULT to adapt to the situation.

-2 A DIFFICULT SITUATION I would like to avoid.

No.	Type of Situation	Circle the rating describing your feelings about each situation.				
1	Performing duties which change frequently	+2	+1	0	-1	-2
2	Performing routine tasks.	+2	+1	0	-1	-2
3	Planning and directing an entire activity.	+2	+1	0	-1	-2
4	Dealing with people.	+2	+1	0	-1	-2
5	Influencing people's opinions, attitudes, and judgements.	+2	+1	0	-1	-2
6	Working under pressure.	+2	+1	0	-1	-2
7	Making decisions using personal judgement.	+2	+1	0	-1	-2
8	Making decisions using standards that can be measured or checked.	+2	+1	0	-1	-2
9	Interpreting and expressing feelings, ideas, or facts.	+2	+1	0	-1	-2
10	Working within precise limits or standards of accuracy.	+2	+1	0	-1	-2

Directions: Part 2

List in ORDER OF YOUR PREFERENCE the ten types of work situations. Place the situation type NUMBERS in the boxes below. Use the ratings you gave to each situation to help determine the order. For example, if you rated any situations +2, they should be listed ahead of any rated +1.



First Choice 2nd 3rd 4th 5th 6th 7th 8th 9th Last Choice

Adapted with permission from the Work Situations Checklist

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Charleston, West Virginia 25325

Directions: Part 3

Transfer the results of this activity to Page 2 of the Vocational Appraisal Summary (VAS):

A. Look at the order in which you ranked the Work Situations in Part 2 above. Select the three or four situations to which you feel you could most easily adapt. Enter the word "YES" in the corresponding boxes in column 1, Page 2 of the VAS to show your strongest preferences for these Work Situations.

B. Enter the word "NO" in the appropriate boxes in column 1 of the VAS to show the Work Situations that you said you would dislike the most. (These are probably the Work Situations to which you assigned a -2).

C. Look at your "NO" responses again. Are there any of the Work Situations you would be willing to adapt to if a job met your other requirements? If so, put "YES" in the appropriate box in column 2. This will indicate that you would be willing to consider a job which involved the work situations if other factors were present.

D. What "evidence" do you have for your decisions? Work history, education, hobbies, or just a "feeling"? Use the rating code at the bottom of Page 1 of the VAS to complete column 3. You may use more than one code letter for each box, if you wish.

GENERAL EDUCATIONAL DEVELOPMENT CHECKLIST

Directions: Part 1

Use the information on pages 210-229 of the Handbook to estimate your current skills in Reasoning, Math and Language.

At the present time, I would rate my
Reasoning level at _____
Math level at _____
Language level at _____
My Total GED is presently at level _____
(Remember, the lowest of RML)

Directions: Part 2

Now go back and indicate the levels based on your self-estimate of ability and willingness. In other words, if you needed higher levels of RML for a job you wanted, to what levels would you be able and willing to improve your GED?

My potential for GED is at
Reasoning level _____
Math level _____
Language level _____
Total level _____

Directions: Part 3

Enter the result from Part 1 in column 3 of the VAS at the bottom of page 2. Enter the results of Part 2 in column 2. Use the code on Page 1 of the VAS to indicate the "evidence" for your judgements.

REGION - 1 RCEC, 1978
C. W. Robinson

ESTIMATING APTITUDES

Directions: Part 1

For each of the aptitudes below, place an X in one of the columns to indicate your estimate of the quickness and ease with which you can learn in that area.

- Although you may use previous experience as a guide, it is important to rate your aptitude, not present skill or whether you like the activity.
- Rate yourself in relation to the adult population in this country and not just your friends or any other small group.

APTITUDE	LOWEST THIRD		MIDDLE THIRD	HIGHEST THIRD	
	10%	23%	33%	23%	10%
	Level 5	Level 4	Level 3	Level 2	Level 1
General G					
Verbal V					
Numerical N					
Spatial S					
Form Perception P					
Clerical Perception Q					
Motor Co-ordination K					
Finger Dexterity F					
Manual Dexterity M					
Eye-Hand-Foot Co-ordination E					
Color Discrim-ination C					

Directions: Part 2

With extra effort, practice, and training do you believe you could learn at a higher level than indicated by your ratings thus far?

Go back and place an O in the columns if you feel that you could - with extra effort - learn at a higher level than you first indicated.

Directions: Part 3

Now, transfer your ratings onto column 1 on the VAS, Page 3. First, look at the X you used to assess your general learning ability. Is it squarely in one of the columns? If so, enter the level number in the proper box on the VAS. If you placed the X near or on the line between levels, you may wish to record two levels - such as 3-2.

Repeat these steps for each aptitude.

Now look at any O's you made. Translate them to levels and enter them in column 2.

Finally, use the code provided at the bottom of Page 3 of the VAS to indicate the "evidence" you have for your judgements.

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SPECIFIC VOCATIONAL PREPARATION

Directions: Part 1

The principle consideration in rating your current SVP should be the amount of time you are willing to spend learning the skills, techniques and knowledges required for average successful performance in an occupation.

- Your ability to succeed in the training is not a factor to be considered in SVP. That is included in your estimate of GED potential.
- The availability of the financial resources required to support you and your dependents is not a factor to be considered in SVP. It is important, but only after you have decided the length of time you are willing to spend in training.

In deciding on the time period you are willing to spend learning new vocational skills, remember that during that period you would be a student, apprentice or trainee. You would not have the status, recognition or (perhaps) the pay of a full-fledged worker in the occupation.

Enter the SVP code number that you decide on at the top of column 1 on Page 4 of the VAS.

Directions: Part 2

Now, reconsider the amount of time you would be willing to invest in a new occupation. If you really found a new occupation that met all your other needs, would you be willing to spend a longer period in specific vocational preparation? If so, enter a new SVP code number in column 2 of the VAS. If not, just leave that box blank.

Directions: Part 3

Consider the "evidence" for your judgements. Using the code provided at the bottom of Page 4 of the VAS, make the appropriate entry in column 3 of the VAS.

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C. W. Robinson

PHYSICAL DEMANDS CHECKLIST

Directions: Part 1

The physical activities in which people engage as part of their jobs vary widely. Some people have jobs which are very strenuous. Others have jobs which require very little physically. Knowing what physical activities you are <u>able</u> and <u>willing</u> to engage in is very important.

Read the questions below. Using information in Appendix D of the WTG Guide and in the Handbook, circle the best response to indicate your <u>present</u> physical condition:

At present, I could - and would be willing to - function on a job which requires:

1. lifting, carrying, pushing, and/or pulling at level S L M H V, (circle one)
2. agility and body equilibrium for climbing and/or balancing. Yes No
3. full use of the lower extremities and back muscles for stooping, kneeling, crouching, and/or crawling. Yes No
4. full use of the upper extremities for reaching, handling, fingering, and/or feeling. Yes No
5. the frequent giving and/or receiving of information by means of talking and/or hearing. Yes No
6. the ability to perceive the nature of objects by seeing them. Yes No

Enter all circled responses in column 1, Page 4 of the VAS.

Directions: Part 2

Reconsider each of the physical capacity factors assuming:

- the availability of physical conditioning services and/or prosthetic devices such as corrective lenses, hearing aids, etc.
- the existence of a job which in all other respects meets your needs.

If you believe that your physical capacities could be <u>increased</u> as a result of these changes, so indicate by making appropriate entries in column 2 of the VAS. Don't forget to complete column 3.

REGION - 1 RCEC, 1978
C. W. Robinson

WORKING CONDITIONS CHECKLIST

Directions: Part 1

The physical surroundings of a job are important factors to consider in making vocational decisions. Knowing the working conditions to which you are able - and willing - to adapt will contribute to your job success and satisfaction.

Read the questions below. Using the information in the WTG Guide (pages 419-20) and the Handbook (pages 331-336), circle the best response to indicate your present ability to adapt to the seven working condition factors.

At present, I could - and would be willing to - adapt to jobs which require that I: (circle one)

1. work inside, outside, or both.
2. work in extremes of cold: Yes No
3. work in extremes of heat: Yes No
4. work in wet/humid conditions: Yes No
5. work in proximity to loud noises or vibrations: Yes No
6. work in condition where there is danger to life or health through bodily injury: Yes No
7. work in which I am exposed to quantities of fumes, odors, dust, gases, or poor ventilation: Yes No

Enter your responses in column 1, Page 4 of the VAS.

Directions: Part 2

Reconsider each factor assuming that you are willing to tolerate any of the conditions so that the questions relate to ability only. Enter any different responses in column 2 of the VAS.

Directions: Part 3

Use the code at the bottom of Page 4 of the VAS to indicate the "evidence" for your ratings.

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DATA, PEOPLE, THINGS CHECKLIST

Directions: Part 1

All jobs require workers to relate to Data, People, and Things to some degree. Estimating your present ability in each of these three areas may help you to identify levels of work which you feel capable of handling.

Using the examples on pages 73-83 in the Handbook, complete the following sentence:

With my present skills and abilities, I would rate myself at the
_____level in Data
_____level in People
_____level in Things

Enter your responses in column 1 on the bottom of the VAS Form on Page 130.

Directions: Part 2

Now consider the levels at which you could function after further education, training, or experience. You should be rating your potential DPT level.

If I maximize the use of my potential, I would be able to function at the
_____level in Data
_____level in People
_____level in Things

Enter your responses in column 2 on the bottom of the VAS Form on Page 130.

Directions: Part 3

Using the code at the bottom of the VAS Form (Page 130), justify your self-ratings in column 3.

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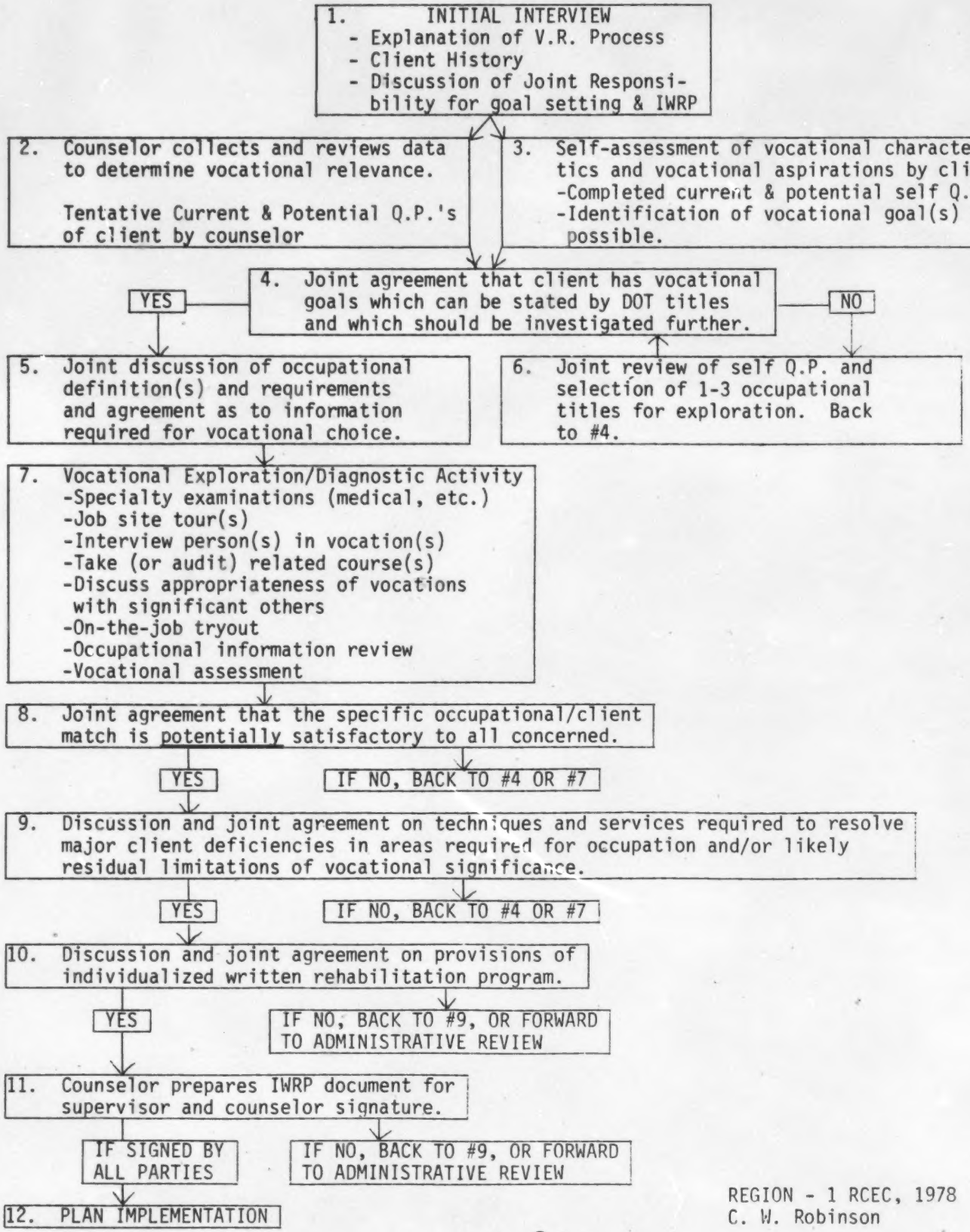
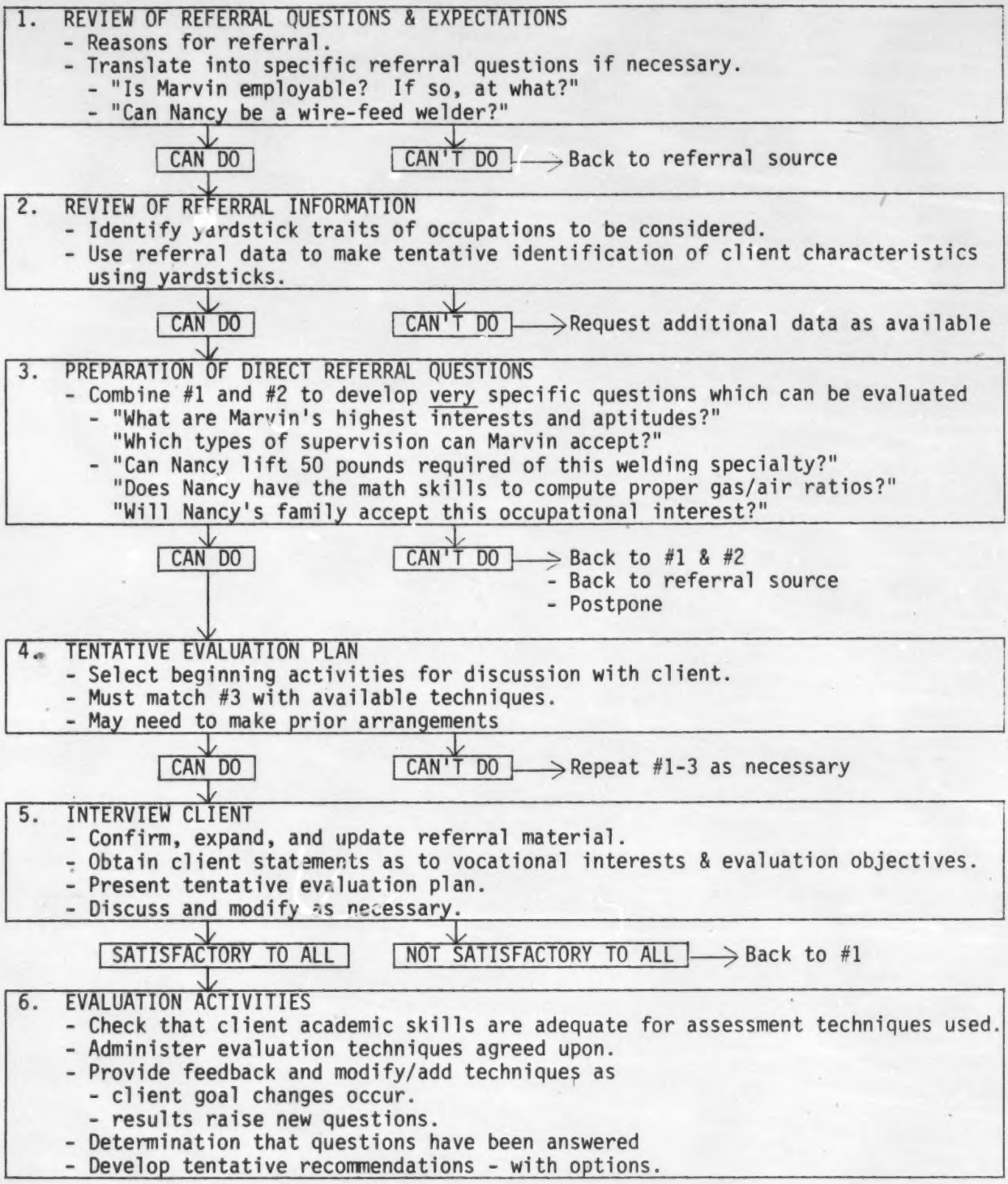
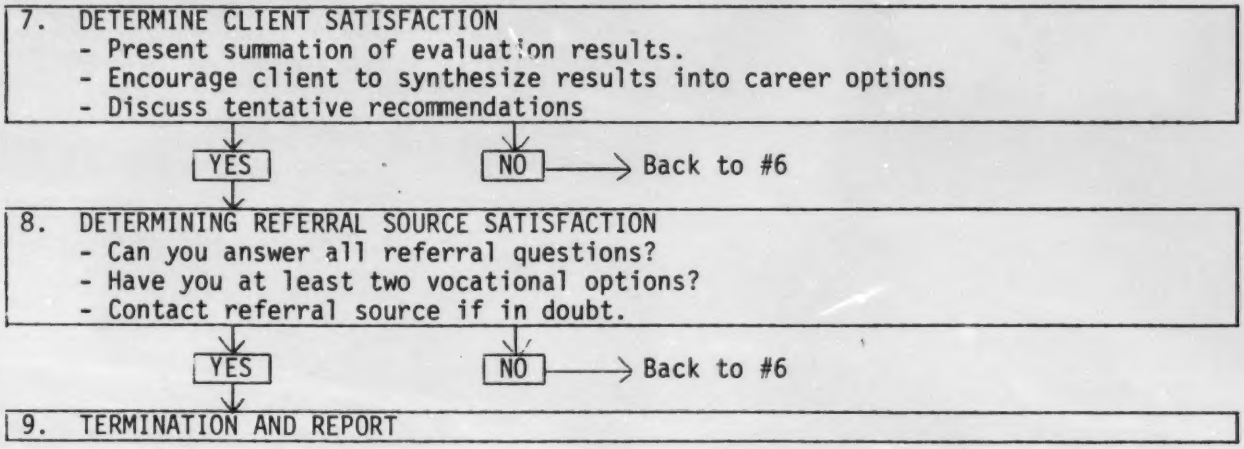
CLIENT/COUNSELOR PARTICIPATION IN REHABILITATION PLANNING: A MODEL


1. INITIAL INTERVIEW
- Explanation of V.R. Process
- Client History
- Discussion of Joint Responsibility for goal setting & IWRP
2. Counselor collects and reviews data to determine vocational relevance.
Tentative Current & Potential Q.P.'s of client by counselor
3. Self-assessment of vocational characteristics and vocational aspirations by client.
-Completed current & potential self Q.P.'s
-Identification of vocational goal(s) if possible.
4. Joint agreement that client has vocational goals which can be stated by DOT titles and which should be investigated further.
YES
NO
5. Joint discussion of occupational definition(s) and requirements and agreement as to information required for vocational choice.
6. Joint review of self Q.P. and selection of 1-3 occupational titles for exploration. Back to #4.
7. Vocational Exploration/Diagnostic Activity
-Specialty examinations (medical, etc.)
-Job site tour(s)
-Interview person(s) in vocation(s)
-Take (or audit) related course(s)
-Discuss appropriateness of vocations with significant others
-On-the-job tryout
-Occupational information review
-Vocational assessment
8. Joint agreement that the specific occupational/client match is potentially satisfactory to all concerned.
YES
IF NO, BACK TO #4 OR #7
9. Discussion and joint agreement on techniques and services required to resolve major client deficiencies in areas required for occupation and/or likely residual limitations of vocational significance.
YES
IF NO, BACK TO #4 OR #7
10. Discussion and joint agreement on provisions of individualized written rehabilitation program.
YES
IF NO, BACK TO #9, OR FORWARD TO ADMINISTRATIVE REVIEW
11. Counselor prepares IWRP document for supervisor and counselor signature.
IF SIGNED BY ALL PARTIES
IF NO, BACK TO #9, OR FORWARD TO ADMINISTRATIVE REVIEW
12. PLAN IMPLEMENTATION

REGION - 1 RCEC, 1978
C. W. Robinson

VOCATIONAL EVALUATION PLAN
A MODEL


1. REVIEW OF REFERRAL QUESTIONS & EXPECTATIONS
- Reasons for referral.
- Translate into specific referral questions if necessary.
- "Is Marvin employable? If so, at what?"
- "Can Nancy be a wire-feed welder?"
CAN DO
CAN'T DO
Back to referral source
2. REVIEW OF REFERRAL INFORMATION
- Identify yardstick traits of occupations to be considered.
- Use referral data to make tentative identification of client characteristics using yardsticks.
CAN DO
CAN'T DO
Request additional data as available
3. PREPARATION OF DIRECT REFERRAL QUESTIONS
- Combine #1 and #2 to develop very specific questions which can be evaluated
- "What are Marvin's highest interests and aptitudes?"
"Which types of supervision can Marvin accept?"
- "Can Nancy lift 50 pounds required of this welding specialty?"
"Does Nancy have the math skills to compute proper gas/air ratios?"
"Will Nancy's family accept this occupational interest?"
CAN DO
CAN'T DO
Back to #1 & #2
- Back to referral source
- Postpone
4. TENTATIVE EVALUATION PLAN
- Select beginning activities for discussion with client.
- Must match #3 with available techniques.
- May need to make prior arrangements
CAN DO
CAN'T DO
Repeat #1-3 as necessary
5. INTERVIEW CLIENT
- Confirm, expand, and update referral material.
- Obtain client statements as to vocational interests & evaluation objectives.
- Present tentative evaluation plan.
- Discuss and modify as necessary.
SATISFACTORY TO ALL
NOT SATISFACTORY TO ALL
Back to #1
6. EVALUATION ACTIVITIES
- Check that client academic skills are adequate for assessment techniques used.
- Administer evaluation techniques agreed upon.
- Provide feedback and modify/add techniques as
- client goal changes occur.
- results raise new questions.
- Determination that questions have been answered
- Develop tentative recommendations - with options.


7. DETERMINE CLIENT SATISFACTION
- Present summation of evaluation results.
- Encourage client to synthesize results into career options
- Discuss tentative recommendations
YES
NO
Back to #6
8. DETERMINING REFERRAL SOURCE SATISFACTION
- Can you answer all referral questions?
- Have you at least two vocational options?
- Contact referral source if in doubt.
YES
NO
Back to #6
9. TERMINATION AND REPORT

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A Comparison of

THE GUIDE FOR OCCUPATIONAL EXPLORATION

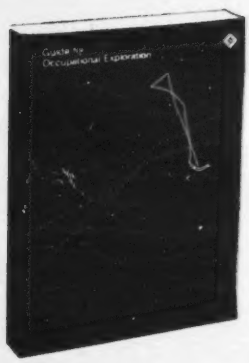
a supplement to the 4th Edition Dictionary of Occupational Titles

and the

WORKER TRAIT GROUP GUIDE

a component of the Career Decision-Making Program

developed by the Appalachia Educational Laboratory



UNIQUE FEATURES:

★ contains listings, by Work Group and Sub-Groups, of all 12,000 occupations (except military) described in the DOT.

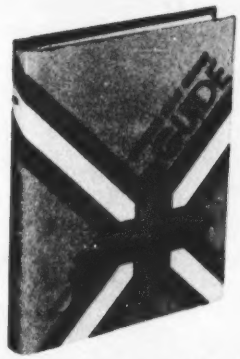
• contains an alphabetical index of all 12,000 occupational titles in the DOT (except military) and identifies the Work Group or Worker Trait Group numbers.

★ contains line art illustrations.

★ 7-8th grade reading level.

Though similar in organization and function, each publication has unique qualities that make both an essential part of an effective career exploration program . . .

See inside for detailed listing of differences



UNIQUE FEATURES:

★ contains listings, by Worker Trait Groups, of 2800 "core" occupations which comprise the major national employment opportunities, as well as occupations found in the most common occupational resources.

★ contains a profile section listing related worker characteristics to help individuals link their personal characteristics to those identified by the Department of Labor as necessary for successful job performance.

★ illustrated with a variety of photographs providing minority representation and balanced representation of sexes.

★ 6-7th grade reading level.

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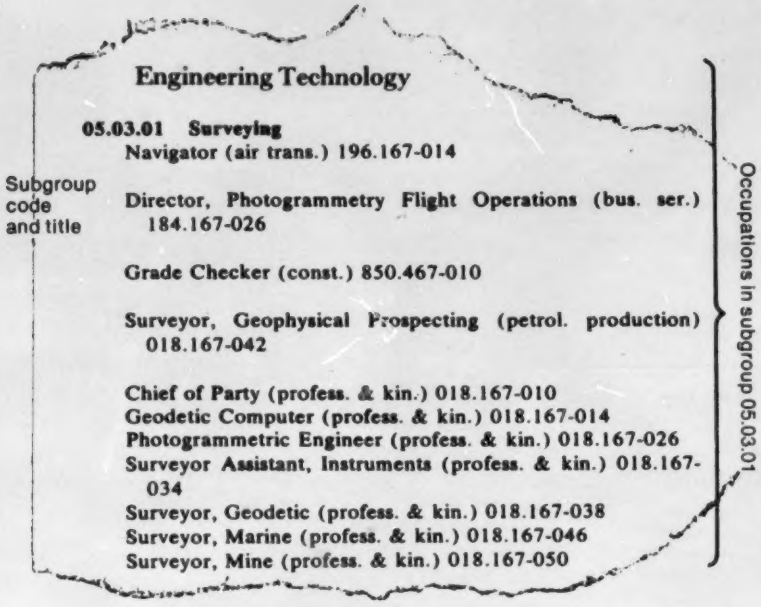
Listing of Occupations by Work Groups . . .



Engineering Technology

05.03.01 Surveying

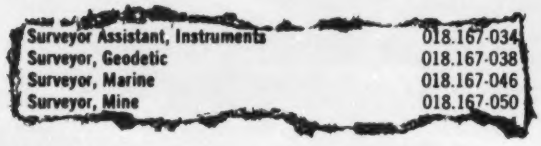
Navigator (air trans.) 196.167-014

Director, Photogrammetry Flight Operations (bus. ser.) 184.167-026

Grade Checker (const.) 850.467-010

Surveyor, Geophysical Prospecting (petrol. production) 018.167-042

Chief of Party (profess. & kin.) 018.167-010
Geodetic Computer (profess. & kin.) 018.167-014
Photogrammetric Engineer (profess. & kin.) 018.167-026
Surveyor Assistant, Instruments (profess. & kin.) 018.167-034
Surveyor, Geodetic (profess. & kin.) 018.167-038
Surveyor, Marine (profess. & kin.) 018.167-046
Surveyor, Mine (profess. & kin.) 018.167-050



Surveyor Assistant, Instruments	018.167-034
Surveyor, Geodetic	018.167-038
Surveyor, Marine	018.167-046
Surveyor, Mine	018.167-050

. . . in the Guide for Occupational Exploration

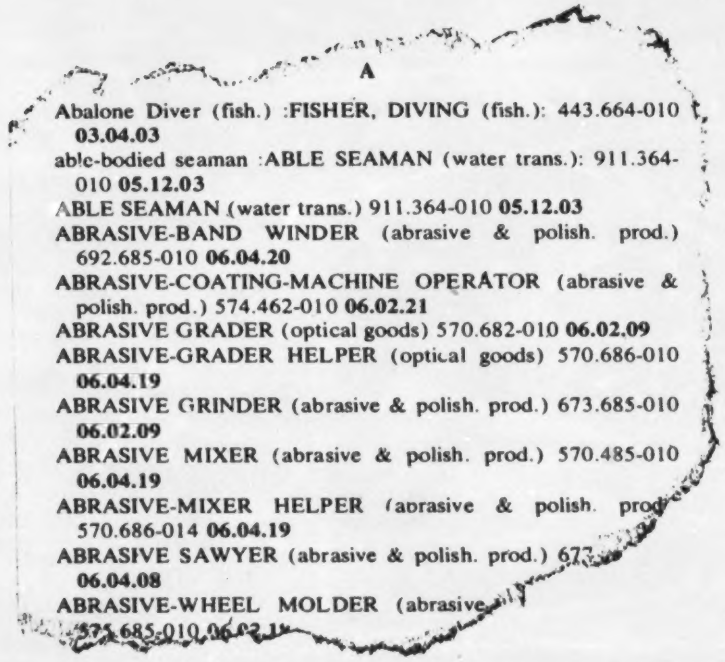
The organizational structure of the *Worker Trait Group Guide* and the *Guide for Occupational Exploration* are both built around the 12 Areas and 66 Work Groups identified by the U.S. Department of Labor, except that the GOE further breaks down Worker Groups into subgroups. In this example, Surveying is subgroup 01 in Work Group 05.03. (The occupations listed are DOT Main Titles only.)

The Undefined Related (UR's) and the alternate titles are not included. Within each subgroup, the occupations are grouped by the industry designation and are listed alphabetically by industry. Notice that a space divides each industry designation. Where there are multiple listings within an industry, the titles are listed alphabetically.

. . . in the Worker Trait Group Guide

Because the AEL Career Information System does not utilize subgroups and in order to conserve space, the *Worker Trait Group Guide* does not list subgroup titles. The example here shows the listing within Worker Trait Group 05.03 that corresponds to the GOE listing above. These occupations represent the great majority of employment opportunities in addition to ones found in the most common occupational information resources for the Surveying category.

Alphabetical Index of the



A

Abalone Diver (fish.) :FISHER, DIVING (fish.): 443.664-010 **03.04.03**
able-bodied seaman :ABLE SEAMAN (water trans.): 911.364-010 **05.12.03**
ABLE SEAMAN (water trans.) 911.364-010 **05.12.03**
ABRASIVE-BAND WINDER (abrasive & polish. prod.) 692.685-010 **06.04.20**
ABRASIVE-COATING-MACHINE OPERATOR (abrasive & polish. prod.) 574.462-010 **06.02.21**
ABRASIVE GRADER (optical goods) 570.682-010 **06.02.09**
ABRASIVE-GRADER HELPER (optical goods) 570.686-010 **06.04.19**
ABRASIVE GRINDER (abrasive & polish. prod.) 673.685-010 **06.02.09**
ABRASIVE MIXER (abrasive & polish. prod.) 570.485-010 **06.04.19**
ABRASIVE-MIXER HELPER (abrasive & polish. prod.) 570.686-014 **06.04.19**
ABRASIVE SAWYER (abrasive & polish. prod.) 673.[illegible] **06.04.08**
ABRASIVE-WHEEL MOLDER (abrasive [illegible] 575.685-010 **06.02.11**

Guide for Occupational Exploration . . .

This is the *only* Index that will provide the Worker Trait Group code for a DOT occupation. The Alphabetical Index is essential for organizing and maintaining the Career Information System, utilized with the AEL Career Decision-Making Program.

The Index lists *all* DOT occupational titles (except military). The Main titles are in all caps, Undefined Related in initial caps and lower case, and Alternate in all lower case.

If the title is an Undefined Related or Alternate, the Main title is provided. The first two titles shown here are examples of this.

The first nine-digit number is the DOT code for the occupation; the last six digits designate the Area/Work Group/Subgroup. However, in the AEL Career Information System, only the first four of the last six digits, representing the Area and Worker Trait Groups, are used.

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Differences in Career Area and Work Group Titles Between the *Worker Trait Group Guide* and the *Guide for Occupational Exploration*

Last-minute changes by the Department of Labor have resulted in several Career Area and Work Group title differences between the just-published GOE and the previously published WTG Guide. These are:

CAREER AREAS

Career Area No.	WTG Guide	Guide for Occup. Expl.
03	Nature	Plants and Animals
04	Authority	Protective
08	Persuasive	Selling
11	Social/Business	Leading-Influencing

WORK GROUPS

Work Group	WTG Guide	Guide for Occup. Expl.
01.06	Technical Arts	Crafts Arts
01.07	Amusement	Elemental Arts
03.01	Managerial Work: Nature	Managerial Work: Plants and Animals
03.02	General Supervision: Nature	General Supervision: Plants and Animals
03.03	Animal Training and Care	Animal Training and Service
03.04	Elemental Work: Nature	Elemental Work: Plants and Animals
05.08	Land Vehicle Operation	Land and Water Vehicle Operation
05.10	Skilled Hand and Machine Work	Crafts
06.03	Production Control	Quality Control
07.04	Information Processing: Speaking	Oral Communications
07.05	Information Processing: Records	Records Processing
10.02	Nursing and Therapy Services	Nursing, Therapy, and Specialized Teaching Services

Differences in Work Group Assignment of Occupations Between *Worker Trait Group Guide* and the *Guide for Occupational Exploration*

The just-published GOE contains several last-minute changes in assignment of occupations to Work Groups that differ from those listed in the previously published WTG Guide. The Appalachia Educational Laboratory recommends that some of the changes made by the Department of Labor be included in the Worker Trait Group Guide.

However, some of the DOL changes do not reflect the AEL recommendations and should be left as assigned in the Worker Trait Group Guide.

The GOE should be corrected for use with the Career Information System. These changes do not affect the use of either publication.

A. Titles which should be changed in the Alphabetical Index of the GOE to conform to WTG Guide designations:

Occupational Title	WTG Guide Assignment	GOE Assignment
Astrologer	01.07	10.01
Cigarette Making-Machine Operator	06.02	06.04
*Counselor	11.02	10.01
Cruiser	03.01	03.02
Diver	05.05	05.10
Drilling Machine Operator, Automatic	06.04	06.02
Extension Service Specialist	11.07	11.02
Forester Aide	03.01	03.02
Foundry Supervisor	06.04	06.01
General Supervisor	05.02	06.01
Group Worker	10.01	09.01
Inspector	06.01	06.03
Land Surveyor	05.03	05.01
Machine Molder	06.02	06.04
Motorboat Operator	05.04	05.08
Nailing-Machine Operator	06.04	06.02
Oven Tender	06.02	06.04
Packing-House Supervisor	06.01	06.02
Plater, Production	06.02	06.04
Probation Officer	10.01	07.01
Produce Weigher	05.12	09.04
Rug Cleaner	06.04	06.02
Slasher Tender	06.02	06.04
Supervisor, Cutting-and-Sewing Department	06.01	06.02
Supervisor, Garment Manufacturing	06.01	06.02
Supervisor, Paint Department	06.01	06.02
Supervisor, Paper Products	06.01	06.02
Supervisor, Preparation Department	06.01	06.02
Supervisor, Specialty Food Products	06.01	06.02
Teacher, Blind	10.01	10.02
Teacher, Deaf	10.01	10.02
Teacher, Handicapped Students	10.01	10.02
Teacher, Kindergarten	11.02	10.02
Teacher, Mentally Retarded	10.01	10.02
Teacher, Preschool	11.02	10.02

*AEL has placed Counselor into both WTG 11.02 and 10.01 since the specific occupational definition fits jobs in both groups.

B. Work Group numbers which should be changed in the *Worker Trait Group Guide* to conform to the *Guide for Occupational Exploration* designations:

Occupational Title	WTG Guide Assignment	GOE Assignment
Assembler	05.09	06.03
Blood-Donor Recruiter	11.07	11.09
Chain Offbearer	05.12	06.04
Classifier	06.04	06.03
Conductor	09.04	09.05
Conductor, Yard	05.05	05.08
Customer Service Representative	07.04	05.10
Dean of Students I	11.02	10.01
Dean of Students II	11.02	10.01
Deburrer, Machine	06.04	06.02
Director, Religious Education	11.02	11.07
District Adviser	11.05	11.07
Drill-Press Set-Up Operator, Single Spindle	05.05	06.02
Educational Therapist	10.01	10.02
Emergency Medical Technician	10.02	10.03
Escrow Officer	11.12	07.01
Financial-Aids Officer	11.05	11.07
Guide, Hunting and Fishing	12.01	09.01
Inspector, Electrical	05.07	05.03
Instructor, Physical	12.02	10.02
Mailing Machine Operator	06.03	06.04
Marker	06.03	05.09
Petroleum Inspector	05.06	05.07
Podiatric Assistant	10.02	10.03
Registrar, College or University	11.05	11.07
Residence Supervisor	11.08	11.07
Shipping and Receiving Weigher	06.03	05.09
Stand-In	01.07	01.08
Teacher Aide II	07.07	07.01
Tester, Motor	06.02	06.03
Watch Repairer	06.01	05.05

Reading Level Comparison Between the *Worker Trait Group Guide* and the *Guide for Occupational Exploration*

One Work Group from each of the 12 Areas of both publications was selected for this comparison. The Lorge Formula was used to measure the reading levels.

Work Group	Work Group Title	WTG Guide Reading Level	GOE Reading Level
01.02	Visual Arts	7.8	7.8
02.01	Physical Sciences	6.8	7.9
03.01	*Managerial Work: Plants & Animals	6.8	8.2
04.02	Security Services	6.7	7.4
05.05	Craft Technology	6.7	6.9
06.03	Production Control	6.5	7.0
07.01	Administrative Detail	6.7	7.2
08.03	Vending	6.6	7.2
09.03	Passenger Services	6.3	6.6
10.02	*Nursing, Therapy, and Specialized Teaching Services	6.7	6.9
11.04	Law	6.3	7.1
12.01	Sports	6.5	7.2
AVERAGE		6.7	7.2

Overall grade level difference: .5

*Title from the *Guide for Occupational Exploration* is used here. Title is slightly different in the *Worker Trait Group Guide* (see previous page).

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